

Appendix A

Supplemental Information and Guidance for Outdoor and Indoor Air Quality Programs Funded with FY 2007 STAG Funds

Organization

Appendix A is divided into seven sections: an executive summary which highlights major developments affecting FY 2007 grant assistance, fundamental elements of sound grants management, areas of emphasis and change in grant funded programs (e.g., ambient monitoring), information on other significant air program activities, a preliminary FY 2007 air grant allocation, information on the FY 2007 state indoor radon grant program and grant allocation, and supplemental information for EPA project officers on defining programmatic and environmental results from grants.

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Section I. EXECUTIVE SUMMARY

The technical program guidance identifies the air and radiation priorities, programs and milestones necessary to achieve the performance goals in the Agency's Annual Performance Plan and Congressional Justification and to make progress towards the Clean Air goal in the Agency's Strategic Plan. State, local and Tribal agencies (and key multi-state organizations), as co-implementors, are essential to that effort. Their roles and responsibilities, supported by EPA grant assistance, are described in the State/ Local Air Quality Management, the Tribal Air Quality Management, and the Radon components of the technical program guidance.

Key Topics

- Changes in Grant Funding and Authority
- Changes in Ambient Monitoring Networks
- Changes in PM_{2.5} Funding and Authority
- Continued Implementation of New Standards
- Expanded Diesel Emissions Reduction Effort
- Grants Accountability and Results: PART Review, State WP Template
- Continued Need for Stakeholder Consultation Prior to Final Allocation.
- Additional Information for EPA Project Officers

This appendix provides additional information and guidance on selected program areas supported by grants to these agencies and organizations. The appendix highlights the major programmatic and administrative changes impacting program grants in FY 2007 and includes a preliminary distribution¹ of state/local air grants. There are several significant developments for grants in FY 2007 – changes in funding level, purpose and authority; a restructuring and funding of monitoring programs; refinements in performance measures and accountability; and implementation of other key program and management provisions. While the focus of the appendix is primarily on state and local program grants, important provisions impacting project grants are also discussed. Separate, additional guidance may also be available for Tribal and Radon grant recipients. Agencies should contact their EPA program contact for more information.

FY 2007 Funding Changes

The FY 2007 budget request (Table A-1) includes an expanded \$49.5 diesel emission reduction grant program that would incorporate the Clean School Bus program. The guidance discusses a proposed funding approach for this program. While requested STAG funds for FY2007 increase overall, funds for state and local air pollution control agencies and regional haze planning organizations decline. The reduction is to be attributed to the areas of CO, SO₂, NO₂ and lead where significant air quality gains have been achieved. Funds have been retained to address remaining lead non-attainment issues. In addition, the PM_{2.5} monitoring program is

Table A-1 STAG Assistance: FY 2006 vs. FY 2007 (in \$Ms)

| Program | FY 2006 Enacted | FY 2007 Request |
|---|-----------------|-----------------|
| Continuing Air Program * | \$173.46 | \$182.68 |
| PM _{2.5} Air Monitoring (\$103) | \$41.87 | |
| Regional Haze Planning (\$103) | \$4.93 | \$2.5 |
| Clean School Bus USA | \$6.9 | |
| Diesel Emission Reduction Act | | \$49.5 |
| Tribal Air Program | \$10.89 | \$10.94 |
| State Indoor Radon | \$8.03 | \$8.07 |
| Total | \$246.08 | \$253.69 |
| * Includes continuing \$105, air toxics monitoring, \$106 OTC. For FY 2007, includes PM _{2.5} monitoring funding of \$25.5M. | | |

¹ The allocation is preliminary at this point since: (a) revisions may be necessary based upon an appropriation and enacted budget, (b) PM_{2.5} monitoring funds will not be allocated among Regional Office until June 30, 2006 in order to have more consultation with state/local partners per their request, and (c) the amount of funds devoted to associated program support is subject to revision based on updated information from affected state/local agencies.

moving from 100 percent federal-funded §103 authority to the cost-shared §105 program with federal and state/local funding levels shifting accordingly. The methodology and details of the preliminary allocation are shown in Section V of this appendix.

Proposed Restructuring in Ambient Monitoring

Revisions have been proposed to the national ambient air quality standard for particulate matter as well as to the Agency's broader ambient air monitoring regulations. In addition to the change in the funding authority for the PM_{2.5} monitoring program, various investments and disinvestments have been proposed. Together these PM_{2.5} changes pose significant funding implications for state and local agencies. Accordingly, EPA and its state and local partners have agreed to extend their consultation on PM_{2.5} network revisions in order to arrive at a more strategic distribution of PM_{2.5} monitoring grant resources by June 30, 2006.

Adjustments are to occur in other monitoring areas. EPA will again target \$10 million for air toxics monitoring under section 103 but will shift an additional \$1.8 million from competitive local-scale monitoring to increase support for the National Air Toxics Trends Stations Network (NATTS). EPA will also reserve funds for performance audits of monitoring programs pending state/local assumption of that activity.

Clarifying State Grant Performance

The FY 2007 budget request was also accompanied by OMB's Program Assessment Rating Tool (PART) review of both the PM_{2.5} and Ozone (O₃) NAAQS program, including the state grant portion, and the Agency's Indoor Air Quality program. OMB determined that the State/local air grant program for the NAAQS was unable to demonstrate its effectiveness due to inadequate short-term performance measures. OMB and EPA have now agreed upon a limited number of annual measures to be initiated in FY 2007. While OMB deemed the Indoor Air program to be moderately effective, it suggested that the results from State Radon Grant programs needed to be more transparent. EPA is working with states to address this concern.

OMB also directed that the Agency provide a template for use by States in preparing and submitting their grant work plans for categorical grants and Performance Partnership Grants (PPGs) starting in FY 2007. The template requires that states provide a clearer linkage of their grant-funded efforts to EPA's strategic long and short-term goals and highlight the relevant aspects of their annual performance and results. After consulting with state and local agencies, OAR has developed an initial template and measures for FY 2007 based upon the results of the PART review and existing accountability provisions. Increased reporting by recipients is not required. The template is discussed in more detail in Section II and in Appendix C.

Other Key Grant Information

Section VII and Appendix D of the guidance include additional information and guidance for EPA project officers and grant recipients to assist them in ensuring the effective management of their grants. This includes a more detailed discussion of environmental and programmatic results in grants, determining cost reasonableness, timeliness of grant awards, and other key grant administrative provisions.

Section II. EFFECTIVE GRANT MANAGEMENT and RESULTS

OMB PART Assessment and Grant Work Plan Template

The PART is used by the Administration as a systematic method to assess the performance of federal programs. The PART: (a) assesses overall program effectiveness from design to results achieved; (b) emphasizes robust performance measures as a way to convey a comprehensive story of what products and services an agency program buys; and (c) helps inform budget decisions and identify actions to improve results. The PART has been applied to 42 EPA programs thus far. During FY 2005, air-related analyses focused on the PM_{2.5} and Ozone NAAQS program and on the Agency's Indoor Air Quality program.

The OMB PART review determined that the air quality state grant and permitting portions of the NAAQS program were ineffective noting that better short term measures of performance for grants that linked results to the Agency's long and short term strategic goals must be provided. The review also called for the current grant allocation process to be updated² and recommended that the PM_{2.5} monitoring grant program to transition from §103 (100 percent federally funded) to §105 authority (minimum 40% recipient cost share). While the Indoor Air program was found to be moderately effective, OMB determined that the program's budget was not explicitly tied to the accomplishment of performance goals and that state radon grantee performance data needed to be made more transparent to the public. OMB's findings may be found at: <http://www.whitehouse.gov/omb/expectmore>.

In addition to the PART findings, OMB also directed that the Agency develop a template that states must follow, beginning in FY 2007, in preparing and submitting their work plans for single media categorical and Performance Partnership grant awards. The template should: (a) include clear linkages to EPA's Strategic Plan and long and short-term goals; (b) have requirements for consistent and regular performance reporting; (c) allow for meaningful comparisons between various States' past and planned activities and performance; and (d) include language and mechanisms assuring state accountability in meeting performance goals.

In response to the template directive, OAR has acted to minimize any increased reporting for recipients and to focus on outcome measures. The measures in the template are a subset of the larger suite of OAR commitments and measures appearing in the Agency's Annual Commitment System (ACS) and either reflect information already being reported by recipients through their work plans or information that is readily available and that can be combined to form a new metric (i.e., NAAQS grant PART measures). Appendix B of the national guidance document provides a complete listing of the FY 2007 annual commitments and grant measures.³

² OAR has discussed with state and local representatives the need to re-examine the approach used to distribute §105 grants. State and local agencies, through STAPPA-ALAPCO, have agreed to participate in that analysis. EPA intends to provide ample time for analysis and discussion with stakeholders before instituting a re-allocation approach. If a revised allocation approach is warranted, it would not be instituted any earlier than FY 2008.

³ The ACS includes commitments and measures that EPA feels are essential for program management and performance assessment. Responsibilities are included for both EPA (HQ and Regions) and State/Local/Tribal grant recipients. All ACS information applicable to grant recipients is still required for coverage in grant work plans. The template doesn't diminish these; it simply highlights a subset of this information by focusing on those aspects that express short-term environmental results.

For outdoor air, OAR is focusing largely on the outcome measures jointly agreed to by EPA and OMB in the recent NAAQS grant program PART review. Since most of these measures combine existing data in the form of a new metric, EPA will take the lead in developing the initial baseline information and results for these measures in FY 2007. In abbreviated form these are: changes in population-weighted ambient ozone concentrations, changes in the number of days in the ozone season where the ozone NAAQS is exceeded, and reductions in the number of AQI (multiple pollutant) days over a certain level in baseline non-attainment areas. Also included are a limited number of output measures that rely upon key programmatic and environmental data that is already being reported by states and locals.

For indoor radon, in advance of the PART review, the Office of Radiation and Indoor Air (ORIA) had been working with the Regional Offices to standardize and improve the results of the discretionary State Indoor Radon Grant program (SIRG) that States report to EPA. In FY 2005, ORIA created a standard reporting form for Regions to use in reporting State grant results. ORIA and the regional offices are currently examining those results to identify potential consistent measures to be requested from the State grantees for future reporting and specific quantifiable targets that regions can commit to annually, beginning in FY 2007.

At this point, a set of proposed measures has been developed for inclusion in the template. ORIA's approach has been to identify key long term and annual performance measures to which States would link their goals. These include: the potential number of cancer cancers prevented through reduced exposure, the number of homes and schools mitigated, and the number of homes and schools built with radon resistant new construction. One of the key issues that joint EPA-State workgroup is considering is the different approaches that states have in addressing radon. These approaches depend on several factors including: the relative risk of radon in the State, the population affected, and other approaches a State may determine to be most effective. Some States will be able to directly link to EPA's measures, while others will be able to demonstrate how their work supports EPA's measures.

Appendix C provides more information on the template and its content, its relationship to the larger suite of performance measures and commitments, what it requires of Regions and recipients in its initial year (including the nature of FY 2007 work plan submissions), and EPA's role. In summary, OAR is providing a limited set of relevant performance measures for each of its two major state categorical grant programs, measures that have been vetted with the Agency's co-implementors. OAR would also like to discuss with its co-implementors the establishment of joint process that would focus on continuous improvement of the performance measures that we use.

Achieving Programmatic and Environmental Results

The OMB template recognizes the importance of assuring that intended results are achieved in the effective utilization of public funds. It is consistent with prior actions taken by EPA to bolster the effective management of grants and ensure results, specifically EPA's Order 5700.7 – Environmental Results in Grants effective in January 2005. Order 5700.7 applies to *all Agency grants* not just grants to States – and it covers all phases of the grants process from solicitation to application to reporting to evaluation. The Order requires EPA project officers to assure that each grant: (a) can be linked to the Agency's strategic architecture, (b) articulates measurable outputs and outcomes, and (c) reports the programmatic and, where possible,

environmental results achieved. OAR's national guidance outlines selected programmatic and environmental results expected from state, tribal, and local programs funded by Federal grants and will also include any applicable PART measures. Regional offices should use the national guidance in the negotiation of project, categorical and performance partnership grant agreements with grantees. For competitive grants, the Agency's announcement or solicitation will also articulate the linkage to the Agency's architecture and the expected accomplishments.

The Order also reinforces the accountability requirements contained in current grant regulations. Approved agreements should meet the requirements of 40 CFR 30, 31 and 40 CFR 35, as appropriate. Pursuant to 40 CFR 35.107, both §105 grants and Performance Partnership grant agreements that include §105 grants should include milestones, deliverables, and expected outcomes or accomplishments. These requirements are consistent with EPA's Order 5700.7. Performance objectives and measures related to the grant-funded activities discussed specifically in this guidance are included within the respective sections of the narrative and Appendix B on commitments and performance measures (including PART measures related to grants). Additional information on environmental results and grants and other grant administrative requirements intended to assist EPA project officers and recipients in improving overall grant management is discussed below and in more detail in Section VII of the appendix. The Results Order may be found at: <http://www.epa.gov/ogd/grants/award/5700.7.pdf>.

Promoting Competition

EPA's policy is to promote competition in the award of grants and cooperative agreements, and to ensure that the competitive process is fair and open, with no applicant receiving an unfair advantage. EPA Order 5700.5, effective September 30, 2002, includes the requirements for implementing this policy. In drafting the order, EPA recognized that it is not practical to compete certain grants and cooperative agreements. The competition order exempts grants for continuing environmental programs, such as those funded under section 105. The order also exempts: CAA section 103 grants for fine particulate monitoring, air toxics monitoring grants awarded pilots, regional haze planning, and federally-recognized tribes and inter-tribal consortia under OAR's tribal grant program; TSCA section 306 grants for state indoor radon programs; and TSCA section 10 grants for tribal radon programs. The order does not preclude EPA from allocating grant funds for a portion of these programs through competition, if the Agency determines it is in the best interest of the public. The order may be found at: <http://www.epa.gov/ogd/grants/competition.htm>. For more information on competition in air assistance programs, contact Katherine Moore at 202-564-1356.

Using Proper Authorities for Award

OAR's "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation (11/12/99)," helps identify the appropriate statutory authority to use in awarding STAG grants. EPA funds state, tribal, and local continuing air programs using the authority of Section 105 of the Clean Air Act and funds the Ozone Transport Commission (OTC) using Section 106 of the Act. The Agency uses the authority of section 103 to fund most other clean air activities, including development of the national air toxics monitoring network and competitive local-scale air toxics projects, Tribal capacity building, regional haze planning and other multi-jurisdictional organizations (comprised of state, local and tribal representatives). As described in Section III of this Appendix, certain monitoring support in FY 2007 will be funded

using the authority of section 105 of the Clean Air Act instead of section 103 as in previous years. Additional guidance on this transition is included in Appendix D. EPA also awards radon assistance grants under sections 10 and 306 of the Toxic Substances Control Act (TSCA). EPA will be reviewing this guidance during CY 2006 to determine what updates may be necessary.

Ensuring Effective Oversight of Assistance Agreements

EPA issued Order 5700.6, effective January 8, 2003, to streamline post-award management of grants and cooperative agreements and to help ensure effective oversight of recipient performance and management. The order encompasses both the administrative and programmatic aspects of the Agency's financial assistance programs. It requires each EPA office providing assistance to develop and carry out a post-award monitoring plan, and conduct basic monitoring for every award.

From the programmatic standpoint, this monitoring should ensure satisfaction of five core areas: (1) compliance with all programmatic terms and conditions, (2) correlation of the recipient's work plan and application to actual progress under the award, (3) availability of funds to complete the project, (4) proper management of, and accounting for, equipment purchased under the award, and (5) compliance with all statutory and regulatory requirements of the program. Offices must conduct advanced monitoring on a certain portion of grant awards each year and carry out more extensive contact with, and review of, recipient performance. Both levels of oversight must be documented in the official grant file. EPA Regions may find more information on the order at: <http://epawww.epa.gov/oiaijhkh/order/5700.6.pdf>.

Additional Guidance and Tools

Additional information and guidance on grant administration and management for project officers and recipients is provided in Section VII of this appendix. Recent or proposed Agency policies or requirements on timeliness of award, cost reasonableness/cost review, pre-award assessment of non-profit applicants, Agency administrative review of discretionary grants, definition of co-regulator/co-implementor, and treatment of un-obligated or expired funds are discussed. Further, additional guidance consolidating the administrative provisions affecting the §105 air grant program, updated guidance on the use of the STAG appropriation, information on updated CFDA entries, and a STAG/GPRA crosswalk will be provided in CY 2006.

Section III. AMBIENT MONITORING

Revisions to the National Ambient Air Monitoring Regulations and the Draft National Ambient Air Monitoring Strategy

On January 17, 2006 EPA proposed revisions to the national ambient air quality standard (NAAQS) for particulate matter. The revisions included specifications for Federal Reference methods for monitoring of fine (PM_{2.5}) and coarse (PM_{10-2.5}) particulates and to the broader ambient air monitoring regulations.

Monitoring Highlights

- Implications of new PM_{2.5} standard, ambient monitoring regulations and NAAMS on network configuration.
- PM_{2.5} moves to §105 from §103 with reduced federal funds and new match.
- Enhance NATTS w/ a shift of \$1.8 M from community-scale air toxics
- Resources for data analysis and QA.
- Assessment of IMPROVE.
- Tribal air monitoring considerations.

Together, the revisions propose to restructure the networks for criteria pollutant monitoring including changes to both the gas and particulate programs. Consultation with, and peer review from, the Clean Air Scientific Advisory Committee (CASAC) and its Ambient Air Monitoring and Methods Subcommittee has driven the changes to the PM NAAQS and related PM monitoring rule changes. The rest of the proposed rule changes, some of which also will affect PM NAAQS monitoring, are based on the recommendations from the December 2005 draft National Ambient Air Monitoring Strategy (NAAMS)(see <http://www.epa.gov/ttn/amtic/monstratdoc.html>).

The draft national strategy has been developed over the last five years by EPA and the State, local and Tribal partners that operate the nation's ambient air monitoring networks. A major purpose of the strategy is to optimize the networks to be more responsive to current and future needs (e.g., assess air quality trends, better characterize the multi-pollutant nature of air pollution, provide for more timely information through continuous monitoring, better support development of improved air quality simulation models, etc.).

In some cases, however, established monitoring regulations have constrained optimization of the networks because of minimum data requirements that are difficult to justify given their relative value. Accordingly, the revisions to the ambient air monitoring regulations propose the removal of network minimums for some pollutants, a lowering of minimums for others, eliminating the National Air Monitoring Station (NAMS) designation, and reducing the requirements for photochemical assessment monitoring sites (PAMS). While new required monitoring has been proposed at multi-pollutant monitoring stations called NCore sites and there are proposed requirements for a new network of PM coarse monitors, neither of these two new initiatives is required within the 2007 grant period.

This Section provides guidance for the use of particulate matter (PM), other criteria pollutants, PAMS, and air toxics monitoring resources, and reflects the emerging direction provided for in the draft national strategy. For applicable monitoring of criteria pollutants, PM speciation, other criteria pollutants, PAMS, and NCore multi-pollutant sites, this guidance has been prepared consistent with the proposals described in the revisions to the ambient air monitoring regulations.

Highlights of Proposed Changes in Monitoring Funding for FY 2007

In addition to implementation of the revised national monitoring strategy and changes to the ambient monitoring regulations, the President's FY 2007 budget request also proposes significant changes from FY 2006 in how some aspects of ambient monitoring are to be funded. Key areas of change compared to FY2006 are summarized below.

- The promulgation of the 1997 PM_{2.5} NAAQS, designation of affected areas, and preparation of plans for attainment, means that the grant authority for operating ambient air monitoring networks for PM_{2.5} and related precursors, formerly funded with 100 percent federal funds under §103, must now shift to coverage under the continuing program authority of §105. This means that State and local agencies will receive PM_{2.5} monitoring §105 funds that will be subject to §105's cost sharing requirements including an overall 40 percent recipient match.
- Federal funding of the PM_{2.5} monitoring program will be \$25.5M, representing 60 percent of the \$42.5M historically provided for the PM_{2.5} monitoring program when it was under §103. EPA's state and local monitoring partners have requested more time for consultation on the allocation of these reduced funds among Regional Offices, so that the degree to which each Regional Office's states have already eliminated less valuable monitoring activities can be considered more carefully, rather than making across-the-board funding reductions. Therefore, this document does not contain any Regional Office-level allocation of these funds, and the national level allocation in this document is only the preliminary allocation. A final allocation will be completed by June 30, 2006. In developing the final allocation, EPA's priority will be that essential monitoring for protection of public health from PM exposure above the NAAQS not be compromised in any area. It is EPA's intention to negotiate grant work plans that ensure completion of such essential PM_{2.5} monitoring activities.
- In addition to the change in funding authority for PM_{2.5} monitoring, additional reductions have been proposed in program areas where the attainment of national standards has been achieved (i.e., CO, SO₂, NO₂, Pb, and PM₁₀). EPA anticipates that much of these reductions can be achieved by reductions in monitoring operations for these pollutants. Such reductions are anticipated in the draft National Ambient Air Monitoring Strategy and will be facilitated by the proposed changes in the monitoring regulations mentioned above.
- No FY2007 PM_{2.5} funding is specifically targeted to initiate additional NCore multi-pollutant sites.⁴ However, any State may coordinate with its applicable EPA Regional Office on whether sufficient FY2007 funding is available and can be used to implement a site in its network.
- Some changes in funding for PM_{2.5} filters and speciation laboratory costs will occur due to pre-negotiated contract increases in unit prices.
- There are no FY2007 STAG funds targeted to PM-related equipment upgrades at CASTNET sites. FY2006 funds previously allocated for this purpose will remain available for these

⁴ In FY2005-FY2006, funding was made available to start up high sensitivity gas measurements of CO, SO₂, and NO_y at 35 NCore multi-pollutant monitoring stations. FY 2007 planning has incorporated funding for operation and maintenance of these existing sites. EPA has proposed a several year implementation of the NCore network with the full network deployed by January 1, 2011. The existing 35 sites are anticipated to provide sufficient information to test the operational capability of the network.

upgrades, but will not be expended until the equipment for these upgrades has been demonstrated to have acceptable performance.

- No FY2007 funds will be targeted for support of ammonia monitoring at some NCore multi-pollutant monitoring stations. Some FY2006 funds were targeted for this purpose and may be applied this way during calendar year 2007.
- EPA will be proposing to our partners to specifically target full federal funding to protect the continued operation of a small (expected to be less than one percent of the sites) number of speciation and/or NCore multipollutant monitoring stations that provide data that is far more valuable to the national-level air quality program than to the individual state/local agencies hosting those stations.
- Funding for the nationally administered, independent quality assurance program for PM_{2.5} monitoring is reduced to \$1.5M. This is possible as a new implementation strategy has been proposed in the revisions to the monitoring rule that optimizes the number of performance evaluation samples collected in each reporting organization. This effectively reduces the number of performance evaluations collected in large organizations while increasing some in smaller organizations. Funding needed for the quality assurance program may be less than \$1.5M if networks become smaller in size.
- Pending the outcome of the further consultations with our monitoring partners regarding the allocation of PM_{2.5} monitoring funds among each Regional Office, this document does not present any division of awardable STAG funds among types of PM_{2.5} monitoring, even at the national level. In previous years, a nominal allocation among types of monitoring was presented but was only intended as the starting point for negotiations between Regional Offices and state/local agencies, and as a step in the calculation of the costs of needed associated program support through national contracts. The national-level allocation presented here does show estimates for the latter national contract costs, but may be revised as state/local monitoring plans for 2007 are solidified.
- On January 17, 2006 EPA proposed a new requirement that states and local monitoring agencies must ensure adequate and independent quality assurance audits of monitoring stations for non-PM_{2.5} NAAQS pollutants (i.e., CO, ozone, SO₂, NO₂, lead, and PM₁₀). A memorandum outlining the process for implementing this requirement will be provided soon.
- A total of \$1.8 million has been shifted from the Local (or Community) Scale Air Toxics Monitoring Program to the National Air Toxics Trends Stations (NATTS) program, to support the addition of more trends stations and/or more analyses at some or all trends stations. During the remainder of FY2006 we will work with state/local partners to determine how the shifted funds will be used. Funds for the NATTS program will be provided to the affected Regional Offices based on the locations of NATTS sites, and will be awarded under §103 authority.
- PAMS funding overall and the allocation among Regional Offices for FY2007 is the same as was for FY2006.

- The FY 2007 allocation does not target funds for the creation of State/local PM_{10-2.5} (PM coarse) networks. We have proposed that each State complete a plan for this network by January 1, 2008 (with provision for an extension of six months) and that the network be fully operational by January 1, 2009.
- In FY 2006, funds targeted to operation of supplemental PM_{2.5} speciation stations were reduced in anticipation that States could and would discontinue (or fund with other resources) about 40 lower value stations. Pending the further discussions with our monitoring partners, EPA does not intend to target any further reductions to speciation sites in specific states or Regional Offices for FY 2007, but we recommend that States scrutinize the value of the data from all operating stations in light of the substantial cost of operation, shipping, and laboratory analysis. States may want to consider reducing the sampling frequency of supplemental stations to gain further cost savings so long as the reduction does not severely compromise data quality..
- In FY2008 and FY2009, we also anticipate the following changes from to FY2006:
 - C There may be shifts in PM_{2.5} monitoring funds among Regions to reflect further transition to continuous PM_{2.5} instruments, addition of precursor gas monitoring capability at NCore multi-pollutant sites, and discontinuation of additional PM_{2.5} speciation sites.
 - C In FY2008 specific funding may be dedicated to purchase and implementation of PM_{10-2.5} monitors.

FINE PARTICULATE (PM_{2.5}) MONITORING NETWORK

The PM_{2.5} monitoring network includes three well-established components: the network of filter-based Federal Reference Method (FRM)/Federal Equivalent Method (FEMs) used for comparison to the NAAQS; continuous mass monitors used in public reporting of the Air Quality Index; and speciation program samplers and monitors including the Speciation Trends Network, supplemental speciation sites, and IMPROVE program used to characterize the chemical composition that makes up fine particulate matter. Smaller dynamic components of the PM_{2.5} monitoring program include the network of continuous speciation monitors and the NCore multi-pollutant measurements that are precursors to PM_{2.5}.

Using data from several components to the PM_{2.5} monitoring network and data from other monitoring conducted by State, local and Tribal Agencies, a series of monitoring assessments have been performed over the last several years to facilitate decision making on which PM_{2.5} monitoring sites should be retained and where new investments should be made. The assessments identified several potential areas for divestment and reinvestment. Areas of interest to enhance PM monitoring included reinvesting monitoring resources for precursor level monitoring of CO, SO₂, and NO₂/NO_y monitoring to better characterize gases that lead to particle formation; and for a larger network of PM_{2.5} continuous monitors.

In December of 2005, EPA posted its Draft of the National Ambient Air Monitoring Strategy (NAAMS) on EPA's website at <http://www.epa.gov/ttn/amtic/monstratdoc.html>. This latest version of the strategy includes an implementation plan describing actions necessary to take

conceptual design elements to routine operation. To the extent possible this grant guidance has been developed consistent with the NAAMS as well as the proposed revisions to the ambient air monitoring regulations.

Overall Direction:

FY 2007 will be the third year of a multi-year transition of the ambient air monitoring conducted by state and local air monitoring agencies along the path set by the draft of the NAAMS. For PM_{2.5} this means continued operation of high value federal reference method (FRM) and speciation sites; PM_{2.5} continuous monitoring and associated data management systems for timely reporting of high quality data; and precursor gas analyzers, data analyses and quality assurance activities that will support better understanding of particle formation.

The restructured networks will continue operation of high value sites, with investments and divestments. To provide a more clear understanding of the expected outcomes of the ambient air monitoring objectives, the following goals for the fine particulate monitoring network have been developed:

- Appropriate spatial characterization of PM_{2.5} NAAQS;
- Public Reporting of PM_{2.5} in the AQI;
- Characterization of PM_{2.5} chemical speciation data for long term trends, development and accountability of emission control programs, and tracking of regional haze;
- Implementation of NCore CO, SO₂, NO₂/NO_y trace-level monitoring to support characterization of PM precursors;
- Assessment of PM_{2.5} data quality;
- Procurement and testing of PM_{2.5} filters.

Divestments:

In the revisions to the ambient air monitoring regulations, EPA has proposed, consistent with the NAAMS, to reduce the required number of FRM/FEM in larger cities. For some areas, especially large cities well below the proposed NAAQS, this may provide an opportunity to divest of one or more redundant monitoring sites. For other areas it may provide an opportunity to move one or more sites, that are not the design value sites, to get a better spatial characterization of PM_{2.5} or seek locations that may potentially be a concern with a lower daily PM_{2.5} NAAQS, as currently proposed.

In the FY 2006 National Program and Grant Guidance we discussed the divestment of approximately 40 PM_{2.5} supplemental speciation sites operated by state and local agencies. While we are not seeking additional reductions in the remaining supplemental sites, States and local agencies may consider additional divestments in areas that are not expected to be in violation of the existing or proposed PM_{2.5} NAAQS. Chemical speciation data from the Speciation Trends Network, IMPROVE, and the remaining supplemental speciation sites will continue to be utilized to track progress over time as the national and local control programs are implemented. There are some areas that are expected to be in residual nonattainment for PM_{2.5} even after the national control strategies are implemented that may have attainment deadlines beyond 2009, or that may be designated nonattainment with the revised 24-hour PM_{2.5} NAAQS. In these cases the Regional Office and the State, and where appropriate, local agencies, should

work out an appropriate network design for the chemical speciation component of their PM_{2.5} monitoring network within the available allocation, as part of their annual network review.

Anticipating the acceptance of recently proposed language in the Federal Register, EPA proposes a reduction of approximately \$200K from the 2006 STAG allocation for the PM_{2.5} Performance Evaluation Program (PEP). It is anticipated that costs of the PEP will be about \$1.5 million for FY07. Costs for the PEP to a monitoring organization are determined by the number of sites within a monitoring organization. Funding needed for the PM_{2.5} quality assurance program may be less than \$1.5M if networks become smaller due to funding limitations in FY2007.

Monitoring organizations will be asked to determine whether they plan on implementing the PM_{2.5} Performance Evaluation Program (PEP) or allow for continued Federal implementation of this program. Monitoring organizations must meet the minimum requirements of adequate and independent in order to implement the PEP. Information on this decision process will be provided soon in a memorandum from the EPA Regional Offices to the monitoring organizations calling on those organizations to make decisions to allow planning of 2007 audit activities. Monitoring organizations which are planning on implementing the PEP without EPA assistance and which are assessed by the EPA Regions as capable to perform the PEP by September of 2006 will be provided back their portion of the grant allocation. This process will ensure that the PEP will be implemented for those organizations planning on implementing the PEP for 2007 but for some reason have encountered implementation delays.

While this preliminary grant allocation does not provide for a reduction in funding to support the IMPROVE program, EPA will work with its State and local agency partners to determine if a funding reduction should be made to the IMPROVE program so that an appropriate balance between Regional Haze monitoring and urban health protection monitoring can be achieved. IMPROVE sites that provide data to meet multiple monitoring objectives, as is the case for many of the eastern sites that are rural background and transport sites in addition to their role for Regional Haze are expected to be valued higher in any assessment for a reduction in monitoring sites.

Investments:

The January 17, 2006 proposed Revisions to the Ambient Air Monitoring Regulations included new performance based criteria for approval of continuous PM_{2.5} methods as equivalent to the filter-based FRM. These new criteria may result in PM_{2.5} continuous methods appropriate for comparison to the NAAQS and for public reporting of the Air Quality Index (AQI). If one or more of these methods could be approved, monitoring agencies could also benefit by discontinuing operation of some or all of the FRMs, which tend to be costly to operate due to pre- and post- sampling laboratory analysis. These savings could be used to pay for some of the cost of the new monitors; however, capital acquisition funds would need to be provided up-front for the new monitors. Therefore, EPA Regional Offices will work closely with State and local agencies within the existing funding allocations on whether new monitors should be purchased, if one or more PM_{2.5} continuous methods become approved for comparison to the NAAQS.

Gas monitoring with high sensitivity measurements of CO, SO₂, and NO/NO_y should continue as part of the PM_{2.5} monitoring network to support characterization of PM precursors in

FY 2007. Planning over the last two years has resulted in funding being available for up to 35 NCore multi-pollutant sites using carryover and FY2005 and FY2006 funds. In FY 2007 we do not anticipate adding any new sites; however, for those agencies that have been taking concrete steps towards implementation of new sites, funding from FY2007 can be used for this effort. The EPA has proposed a several year implementation of the NCore network with the full network deployed by January 1, 2011. This implementation schedule allows sufficient time to pause before additional new sites are deployed and consider any comments as part of the proposed rule that includes the NCore network. The existing 35 sites are anticipated to provide sufficient information to test the operational capability of the network.

For FY 2007, PM_{2.5} monitoring grant funds allocated to states can be directed towards improvements in data management systems to support timely reporting of high quality data from PM continuous mass monitors, PM continuous speciation monitors, and precursor gas monitors. Resources dedicated to this area will support processing, validating, and reporting of data that supports the PM monitoring program.

As in FY2005 and FY2006, EPA will continue to work with state and local agencies to identify priorities for national- and regional-level analyses of the PM monitoring program data. The goal of these analyses will be to assess the adequacy of the network in meeting its objective of supporting the air program, and to recommend changes to optimize that support. These data analyses will be accomplished by utilizing a smaller portion of the PM_{2.5} monitoring funding (\$126K) for contractor support services. Data analysis specific to the design of local control programs and to track their implementation and effects is not included in this effort, and instead should be conducted with funds allocated for SIP development and implementation.

Table A-2 provides a historical comparison at the national level for FY 2004, FY 2005, FY 2006, and preliminary FY 2007 for the various costs associated with the PM_{2.5} monitoring network. The cost estimates for PM_{2.5} filters and laboratory analysis of PM_{2.5} speciation samples are subject to change based on the numbers of sites that will need these services in FY 2007. These numbers may decline if States are not able to provide resources to match the available STAG funds.

State and local agencies have costs associated with many activities within each monitoring program area. Some of these costs are fairly well understood such as capital infrastructure, salaries of staff and management working on the program, and costs of expendable items used in the program. Less obvious, but important to include in planning operation of a network, are costs of participating in conferences and workshops that support training and building further expertise in agencies operating the network. Funds allocated to the Regional Offices may be awarded for any of these various activities.

For more information on PM_{2.5} monitoring, contact Tim Hanley at 919-541-4417 or via mail at hanley.tim@epa.gov.

Table A-2. Historical Comparison of PM_{2.5} Costs

| | FY2004 | | FY2005 | | FY2006 | | Preliminary FY2007 | |
|--|--------------|--------------|--------------|--------------|---------------------------|--------------|--------------------|--------------|
| PM2.5 Monitoring Program Element | State/local | OAQPS | State/local | OAQPS | State/local | OAQPS | State/local | OAQPS |
| Operation & Maintenance (O&M) for Federal Reference Method (FRM) sites | \$21,237,492 | | \$18,337,500 | | \$18,060,500 | | | |
| O&M for chemical speciation sites | \$4,851,500 | | \$4,487,000 | | \$4,306,000 | | | |
| O&M for continuous mass sites | \$3,779,380 | | \$3,845,620 | | \$4,394,920 | | | |
| PM precursor – gas monitor capital acquisition and O/M | | | \$1,250,000 | | \$2,098,500 | | | |
| Data management systems to support real time reporting of data | | | \$640,200 | | \$212,000 | | | |
| State laboratory analysis | \$413,670 | | \$413,670 | | \$288,636 | | | |
| Sub-total | \$30,282042 | | \$28,973,990 | | \$29,360,556 | | \$12,570,176 | |
| Laboratory analysis (including shipping) | | \$6,705,051 | | \$6,207,177 | | \$6,978,568 | | \$6,235,392 |
| Speciation program - carbon channel upgrade | | | | | | | | \$835,385 |
| Filter costs | | \$496,487 | | \$452,044 | | \$299,046 | | \$439,737 |
| QA/Performance evaluation program | | \$1,912,000 | | \$1,912,000 | | \$1,834,000 | | \$1,518,000 |
| IMPROVE in class I areas | | \$2,213,420 | | \$3,797,789 | | \$2,619,790 | | \$2,619,790 |
| State/local protocol IMPROVE sites | | \$891,000 | | \$957,000 | | \$1,155,000 | | \$1,155,000 |
| National/Regional scale data analyses | | | | \$200,000 | | \$253,544 | | \$126,520 |
| In-kind Services Subtotal | | \$12,217,958 | | \$13,526,010 | | \$13,139,444 | | \$12,929,824 |
| Total (Region +HQ) | \$42,500,000 | | \$42,500,000 | | \$42,500,000 ⁵ | | \$25,500,000 | |
| FY 2006 PM _{2.5} Funds | | | | | \$39,000,000 | | | |
| PM _{2.5} /CASTNET Funds | | | | | \$3,500,000 | | | |
| Percent of Totals | 71% | 29% | 68% | 32% | 69% | 31% | 49% | 51% |

⁵ Total reflects \$39 million in FY 2006 funds and \$3.5 million in prior year unexpended PM_{2.5} funds. For consistency in comparison, annual amounts in table reflect requested rather than final enacted numbers.

MONITORING NETWORKS FOR OTHER NAAQS POLLUTANTS

Support of Established NAAQS Networks

This section covers monitoring networks for the other pollutants covered by a NAAQS - ozone (which is measured in part by the Photochemical Assessment Monitoring System network or PAMS), CO, SO₂, NO₂, Pb, PM₁₀, and PM_{10-2.5}.⁶ Each of the criteria pollutant monitoring networks described in this section are funded under §105 of the Clean Air Act. Although §105 funds typically support established, mature monitoring programs, there is still a need to refine these networks to meet the objectives identified earlier in this guidance and per the direction provided by the draft National Ambient Air Monitoring Strategy.

Of the criteria pollutants noted above, ozone (O₃) and fine particulates (PM_{2.5}) remain the most pervasive pollutants nationally with respect to the health-related levels established by the NAAQS. However, all pollutants are still of interest depending on local needs and use of the data for other monitoring objectives. Gaseous pollutants such as CO, SO₂, and NO₂, if measured with appropriate sensitivity, can be used in analysis and models to evaluate control strategy development for O₃ and fine particles, and to provide accountability for those control strategy programs after they have been implemented. Such an effort represents a multi-pollutant approach to utilizing monitoring data for air quality management. This is consistent with recent critical reviews of EPA's air programs and one of the key aspects of the national monitoring strategy.

All of these pollutants were evaluated in national and regional assessments as part of the development of the draft National Ambient Air Monitoring Strategy. For CO, SO₂, NO₂, Pb, PM₁₀ and PAMS, it was found that divestment of low value monitoring sites and targeting those resources towards higher priority monitoring and monitoring related activities such as data assessment, quality assurance, and technology investments could be accomplished with no degradation in monitoring effectiveness. For O₃ it was determined that while there was an appropriate number of monitoring sites nationally, the locations of these monitoring sites were not always spatially optimized. Thus some areas had an overabundance of O₃ monitoring sites, while others areas did not have enough. For FY 2007, State and local agencies should continue to improve their monitoring networks by working with their EPA Regional Office to divest of low value monitoring and invest those resources into higher priority monitoring and monitoring related activities.

A summary of the desired outcomes in using §105 grant funds to monitor the ambient air for O₃, CO, SO₂, NO₂, Pb, PM₁₀, and PM_{10-2.5} is provided below. Use of §105 funds to support

⁶ On January 17, 2006 EPA proposed to revoke the annual PM₁₀ NAAQS everywhere and to revoke the 24-hour PM₁₀ NAAQS in most of the U.S. Final action on this proposal is scheduled for September 2006. If and where both of the PM₁₀ NAAQSs have been revoked, Regional Offices, States, and Tribes should re-assess all PM₁₀ monitoring operations. EPA-provided funds may still be used for PM₁₀ monitoring if agreed by the Regional Office, but such use may not be the best contribution to protecting public health for the money. Before discontinuing a PM₁₀ monitor, Regional Offices, States, and Tribes should consider the possible use of PM₁₀ data by health effects research projects, and the possibility that the compositional nature of local PM₁₀ is of special interest or concern. Where PM_{10-2.5} monitoring is proposed to be required, States have the option under certain conditions to substitute PM₁₀ monitoring on an interim basis, and this may be a reason to retain some PM₁₀ monitors. See the proposed rule.

activities for adequate and independent quality assurance audits is included here for all of the criteria pollutants listed in this section and the PAMS program. A more detailed listing of the PAMS activities is provided later in this appendix. EPA believes that §105 funds for the aforementioned ambient monitoring programs should be utilized to provide:

- C National and local spatial characterization of O₃ relative to the NAAQS;
- C National and local public reporting of O₃ in the AQI;
- C Local public reporting of CO, SO₂, NO₂, and PM₁₀ in the AQI for areas where these pollutants are of concern;
- C Local characterization of the CO, SO₂, NO₂, Pb, and PM₁₀ NAAQS in the few areas with NAAQS non-attainment and maintenance issues;
- In addition to the monitoring provided for above, limited characterization of O₃, CO, SO₂, NO₂, Pb, and PM₁₀ data in all other areas for long term trends, support for long-term health and scientific assessments, and development and accountability of emission control programs as part of a multi-pollutant approach to air quality management;
- Assessment of O₃, CO, SO₂, NO₂, Pb, and PM₁₀ data quality;
- Analysis and interpretation of the O₃, PAMS, CO, SO₂, NO₂, Pb, and PM₁₀ monitoring data and development of data assessment tools;
- Procurement and testing of PM₁₀ filters.
- Development of monitoring plans for PM_{10-2.5}.
- Independent assessment of these pollutants' data quality based on data generated under the National Performance Audit Program (NPAP) or equivalent state-directed programs, which is required in 40 CFR Part 58.

National Performance Audit Program (NPAP)

The National Performance Audit Program conducts performance evaluations – a type of audit where quantitative data is collected independently in order to evaluate the proficiency of an analyst, laboratory, or some or all of the component parts of a data collection activity. The NPAP is a cooperative effort among OAQPS, the EPA Regional Offices, the monitoring organizations that operate EPA-funded air pollution monitors, and the other organizations that operate air monitors for example at PSD sites. The implementation goals of the NPAP are to audit approximately 20 percent of the monitoring sites in the Ambient Air Quality Monitoring Network each year. Although it is a goal to visit every monitoring site generating data that has significance to the air quality program within a 5-year period, among these there is an emphasis on auditing higher priority monitors (e.g., sites prioritized for health risk reasons) more frequently. This program has been retooled to a through-the-probe (TTP) audit system, where appropriate for the monitoring situation given a sites physical layout, and is being implemented by EPA Regional Office personnel and/or contract personnel currently implementing the PM_{2.5} Performance Evaluation Program (PEP). In FY2005 and earlier, OAQPS funded the purchase and equipping of five trailers and two vehicles for TTP operations. In FY 2006, OAQPS continues to fund this effort outside the STAG allocation. In FY2007, contingent on finalization of the associated monitoring rule amendments proposed January 17, 2006, state/local monitoring organizations will be responsible for implementing these audits, either by providing for their performance without direct EPA involvement or by agreeing to the use of a small portion of their STAG grant funds to fund EPA audit services.

Monitoring organizations will soon be asked to determine whether they plan on implementing the National Performance Audit Program (NPAP) or would prefer continued Federal implementation of this program using §105 resources the state contributes. Any non-EPA audits arranged by monitoring organizations would still need to meet the minimum requirements of being adequate and independent. Information on this decision process for 2007 will soon be provided in a memorandum from the EPA Regional Offices to the monitoring organization, and again at the beginning of each future year, in order to make decisions that will affect the next calendar year audit activities.

Under this approach EPA will initially reserve a portion of each monitoring agency's FY2007 STAG funds to cover potential Federal implementation of the NPAP. NPAP costs to a monitoring organization are determined by the number of geographically separate monitoring sites (not the number of distinct monitors) within a monitoring organization. The program would initially cover sites designated as NAMS/SLAMS/PAMS; in later years, it will cover SPMs using FRM or FEM methods. The sum of these initial hold backs will not exceed \$401,000 in FY2007. Monitoring organizations which are planning on implementing a program of adequate and independent NPAP audits without reliance on EPA contractors, and which are assessed by the EPA Regions as capable to perform the NPAP by September of 2006, would have a portion of their grant allocation returned to them. This process would ensure that the NPAP can be implemented by EPA for those organizations planning on implementing NPAP for 2007 but for some reason anticipate encountering implementation delays. EPA is seeking comment on the appropriate funding approach.

PHOTOCHEMICAL ASSESSMENT MONITORING

Required by section 182(c)(1) of the Clean Air Act, the PAMS program collects ambient air measurements in areas classified as serious, severe, or extreme ozone nonattainment. Each PAMS area collects data for a target list of volatile organic compounds (VOCs), NO_x, NO_y, and ozone, as well as surface and upper air meteorological measurements.

On January 17, 2006, EPA proposed revisions to the current PAMS monitoring requirements. The revisions, if finalized, would greatly reduce the minimum PAMS requirements. The proposed revisions are intended to establish the minimum PAMS network necessary to meet the national objectives of the PAMS program while freeing up resources for states to develop more tailored PAMS networks to suit their specific data needs. Overall, the proposed changes would significantly reduce the costs of the minimum PAMS monitoring requirements. The following summarizes the proposed changes to the PAMS requirements:

- The number of required PAMS sites would be reduced. Only one Type 2 site would be required per area regardless of population and Type 4 sites would not be required. Only one Type 1 or one Type 3 site would be required per area.
- The requirements for speciated VOC measurements would be reduced. Speciated VOC measurements would only be required at Type 2 sites and one other site (either Type 1 or Type 3) per PAMS area.
- Carbonyl sampling would not be required.
- NO₂/NO_x monitors would only be required at Type 2 sites.

- Trace level NO₂/NO_y would be required at one site per PAMS area (either Type 1 or Type 3).
- Trace level CO would be required at Type 2 sites.

The public comment period for the proposed revisions closed on April 17, 2006. After addressing comments, the final rule revisions are scheduled to be signed by September 27, 2006. The Regional offices will begin working with the states to plan and implement agreed-upon changes in the PAMS networks beginning in FY 2007.

Note that in the FY 2006 grant guidance, OAR indicated its intention to make cuts to the FY 2007 PAMS funding to make funds available to support national level data analysis and adequate and independent quality assurance audits for the criteria pollutant programs. STAPPA/ALAPCO recently prepared a compilation of studies showing how states have been using PAMS data to manage air quality and the importance of PAMS data to their programs. Based on the materials presented documenting the use of PAMS data by the states, and in light of an alternative approach to ensure adequate and independent audit of NAAQS monitoring sites that is also part of the January 17, 2006 proposed rulemaking, OAR has decided not to take funds from PAMS to support data analysis and quality assurance activities for the criteria pollutant programs.

For FY 2007, over \$14 million is targeted for operation of the PAMS network. Of this, \$10.5 million is allocated for program implementation and operation, and \$3.5 million is allocated for data analysis by state and local agencies. FY 2007 funds will support four types of activities: monitoring system implementation and operation, data reporting to AQS, data analysis, and quality assurance. Guidance for the use of grant funds for the four types of activities is presented below. Table A-3 shows the allocation of funds among Regions for FY 2007, which is the same as for FY 2006. In light of the changes in requirements, Regional offices should re-examine the allocation between data analysis and implementation/operation rather than adhere to the Table A-3 allocations strictly. Also, Regions may approve the use of some of these funds to replace or upgrade aging or obsolete equipment.

Table A-3. Distribution of Funds for PAMS Support

| Region | Number of PAMS Areas | Data Analysis | Implementation and Operation | Total |
|---------------|----------------------|--------------------|------------------------------|---------------------|
| 1 | 5 | \$726,297 | \$2,125,815 | \$2,852,112 |
| 2 | 1 | \$232,415 | \$571,060 | \$803,475 |
| 3 | 3 | \$348,623 | \$1,087,907 | \$1,436,530 |
| 4 | 1 | \$145,259 | \$366,848 | \$512,107 |
| 5 | 2 ¹ | \$290,519 | \$959,749 | \$1,250,268 |
| 6 | 5 | \$617,603 | \$2,061,029 | \$2,678,632 |
| 7 | 0 | \$0 | \$0 | \$0 |
| 8 | 0 | \$0 | \$0 | \$0 |
| 9 | 8 ² | \$1,162,075 | \$3,307,303 | \$4,469,378 |
| 10 | 0 | \$0 | \$0 | \$0 |
| Totals | 24 | \$3,522,791 | \$10,479,711 | \$14,002,502 |

¹Chicago and Milwaukee have a combined network.
²So. Coast & Mojave Desert AQMDs have a combined network

OAR also recognizes that the PAMS sites are a major source of data on air toxics including some of the toxics that contribute significantly to the total risk from air toxics in some of the largest cities. The Regions, state and local monitoring agencies should keep this dual purpose in mind as the plan network changes in FY 2007 and beyond. For example, as speciated VOC sampling is reduced at type 4 sites, consideration should be given to moving to auto-GC sampling at the remaining PAMS sites.

As part of an overall review of STAG utilization and allocations, EPA is planning to work with the states to evaluate all monitoring networks in an effort to determine (1) if funding should remain at the \$14 million level and (2) if funding should be shifted between states in FY 2008 to ensure that the available funds are being used to conduct the most essential monitoring in the most appropriate locations. The PAMS network will be evaluated as part of that effort. Some criteria that may be used to identify high value PAMS areas including the following:

- **Current ozone concentrations** - Ozone concentrations have changed dramatically since the beginning of the PAMS program. It is appropriate to reduce monitoring in areas where the ozone concentrations have fallen, in order to protect or increase monitoring in areas which are still struggling with ozone problems.
- **Trends in ozone concentrations** – Ozone concentrations are trending down in most PAMS areas, but not all. Areas with flat or upward ozone trends will have a greater need for PAMS data than areas where ozone concentrations have fallen sharply.
- **Data completeness and Data Utilization** – Agencies who have demonstrated an ability to collect, report, and make use of high quality data should be favored over agencies who have failed to collect, report, or use the data.
- **Redundancy** – A number of PAMS areas are in close proximity to other PAMS areas. In these instances it is likely that some redundancy exists.

Based on a preliminary evaluation of the current PAMS network using these criteria, in FY 2008 some funding may be shifted from the northeastern and mid-western states to support a more robust PAMS network in the south-central and western states. The EPA proposes to work with the Regions and states to identify the appropriate criteria and procedures to be used in evaluating the PAMS network. Note that California is constrained by statute on how much of the STAG funds it can receive. Therefore a re-allocation may not result in an overall increase in STAG funds to California

PAMS Activities for State and Local Agencies

The allocated PAMS funds should be used to meet the following objectives. Note, some of these objectives are contingent on the terms of the final rule.

(1) Continue System Implementation

- Reduce number of monitoring sites and monitoring at remaining sites, while remaining in compliance with revised PAMS regulations or approved alternative plans developed as part of reconfiguration efforts.
- Operate remaining existing sites.

- Continue to improve NO_x monitoring, replacing NO_x instruments with NO_y/NO instrumentation and/or more sensitive NO₂/NO_x monitors at select PAMS sites.
- Install and operate trace level CO monitors at Type II sites.
- Develop and conduct area specific ozone precursor studies based on area specific needs.
- Continue making surface measurements of wind direction, wind speed, temperature, and humidity at all PAMS sites and additional measurements of solar radiation, ultraviolet radiation, pressure, and precipitation at one site in each PAMS area. Continue making upper-air measurements of wind direction, wind speed, and temperature at a representative location in each PAMS area. The upper-air monitoring program will depend upon region-specific factors such that the optimum design for a given PAMS region is expected to be some combination of remote sensing and conventional atmospheric soundings.
- For PAMS sites collocated with NCore Level II sites, the meteorological monitoring data for ambient temperature, wind speed, wind direction, relative humidity, barometric pressure, and solar radiation are to be submitted to the AirNow program.

(2) Data Analysis

- Continue to develop and implement PAMS data analysis plans at the state and local levels that demonstrate use of data, provide analyses demonstrating data analysis products and results commensurate with allocated resources targeted for data analysis in Table 4 and the minimum set of PAMS data analyses specified in EPA guidance.
- Use PAMS data to develop and optimize control strategies in State Implementation Plan for ozone.
- Develop trends in ozone precursors, based on PAMS data, that may serve to corroborate “rate-of-progress” demonstrations.
- Use PAMS data to corroborate ozone precursor emissions inventories and to address transport concerns.

(3) Data Reporting

- All PAMS data, including meteorological data, shall be submitted into AQS consistent with 40 CFR Part 58.
- All PAMS data shall be identified in AQS as monitor type “PAMS” or “Unofficial PAMS”.
- Adequate procedures must be developed and followed to ensure proper validation of data prior to submission to AQS.

(4) Quality Assurance

- All sites must have and operate according to a Quality Assurance Project Plan (QAPP) approved by a regional office.
- Ensure that adequate and independent audits are conducted at PAMS sites. One approach to meeting this requirement is an acceptance from the state that EPA withhold a portion of the allocated 105 funds to pay for EPA contractors to perform these audits. EPA will issue more specific guidance on this approach in Spring 2006.

For more information on PAMS please contact Kevin Cavender (919-541-2364).

AIR TOXICS MONITORING

For FY 2007, approximately \$16.5 million in STAG funds under CAA sections 105 and/or 103 are expected to be appropriated to support national air toxics monitoring activities. This includes \$6.5 million implicitly within the section 105 funding to continue support for ongoing air toxics monitoring activities initiated and conducted by state and local air quality agencies, and \$10 million that is explicitly for: 1) operation and maintenance of the National Air Toxics Trends Stations (NATTS), and 2) competitively awarded community-scale air toxics monitoring projects. Included in the NATTS program component are quality assurance, methods development, and data analysis activities. FY 2007 will be the fifth year of NATTS data collection, and the fourth year for community-scale projects. The desired program objectives are:

- C Establish trends and evaluate the effectiveness of air toxics emissions reduction strategies.
- C Characterize the local-scale ambient concentrations that result when air toxics originating from local sources concentrate in relatively small geographical areas, producing the greatest risks to human health.
- C Provide data to support, evaluate and improve emission inventories and air quality models used to develop emission control strategies, perform exposure assessments, and assess program effectiveness.
- C Provide data to support scientific studies to better understand the relationship between ambient air toxics concentrations, human exposure, and health effects from these exposures.

In FY2007, air toxics monitoring funds will be used similarly to the approach of recent years, with the exception of a shift of up to \$1.8M from the local (or community)-scale air toxics monitoring competitive grants to modify the National Air Toxics Trends Stations (NATTS) program to support additional NATTS and/or more analyses at some or all of the NATTS. During the remainder of FY2006 we will work with state/local partners to determine exactly how the shifted funds will be used. Funds for the NATTS program will be provided to the affected Regional Offices based on the locations of NATTS sites, and will be awarded under §103 authority. Regional Offices will ensure that grant work plans provide for the continuation (or start up) of the planned stations.

The NATTS program component will continue to build on the established quality assurance and methods protocols. Laboratory and field staff are working with EPA to ascertain the optimum methods for capturing and analyzing core pollutants associated with risk, develop performance based quality indicators to prove valid data results that will contribute to our understanding of risks, and stabilize the measurements for all 23 NATTS sites so that comparisons across the nation can be made. Improved methods for hexavalent chromium and acrolein have been developed and validated. For FY 2007, all NATTS are required to employ these methods. Documentation is available at: <http://www.epa.gov/ttn/amtic/airtox.html>.

With the established protocols and four years of monitoring data in place, the analytical community will continue to assess trends in air toxics concentration levels, and relate that data to levels of risk. . Funds for quality assurance, methods development, and data analysis activities

associated with the NATTS program will still be treated as associated program support. Funds for the Local (or Community) Scale Monitoring Program will be awarded competitively under CAA section 103 authority.

Table A-4. FY 2007 Proposed Funding for National Air Toxics Trend and Community-Scale Monitoring

| | |
|-------------|--|
| \$2,684,000 | Continued operation and maintenance of the 23 existing NATTS sites at \$122,000 per site. |
| \$1,800,000 | Additional NATTS and/or more analyses at some or all of the NATTS; the specific changes are to be determined via consultation between EPA HQ and Regional monitoring contacts and STAPPA/ALAPCO. |
| \$470,000 | NATTS Quality Assurance: includes periodic Proficiency Testing and Technical Systems Audits, and annual data quality assessment via centrally (OAQPS) managed contracts (associated program support). |
| \$300,000 | Data Analysis: delineate and assess National trends, data and network assessment to include exploration / demonstration of monitoring data utility in providing local scale findings that are useful in S/L/T air quality program management, and Annual Data Analysis Workshop for EPA and S/L/T's to share results; synthesize into annual report (associated program support). |
| \$180,000 | Methods Development: support for improved air toxics monitoring methodology, especially for priority HAPs for which methods either do not exist, or existing methods have been deemed insufficient to meet end user needs (will consult with stakeholders to determine most appropriate target HAPs to achieve stated goal (associated program support)). |
| \$4,418,876 | Community-scale monitoring projects: annual grants competition designed to assist State, local, and Tribal communities in characterizing their local air toxics problems, and tracking their air toxics reductions efforts. Specific details regarding scope and selection criteria for these competed grants is contained in the annual solicitation / Request For Applications (RFA), the notification and additional guidance for which is provided via separate communication between EPA HQ and Regional monitoring and grants contacts, as well as with STAPPA/ALAPCO. |
| \$9,852,876 | Total Section 103 Funding |

The community-scale projects are intended to better characterize air toxics problems at the local level and to address those problems through local actions which complement national regulatory requirements. Such monitoring has the potential to elucidate the scope of local air toxic problems, measure what reductions have been achieved through actions taken, and provide information needed for local and national policy development on reducing emissions from particular sources. In FY2007, the competition for local scale air toxics monitoring projects will be more strongly oriented to issues and problems involving PM-bound air toxics, including gasoline and diesel engine and vehicle PM emissions, than in previous competitions. This may include monitoring using size cutoffs other than the common 2.5, 10, and 10-2.5 micron cutoffs. Also, now that the 1999 National Air Toxics Assessment is available for public access, EPA proposes to place greater weight on projects addressing situations that appear to be risk hot spots in the 1999 NATA results for which short-term monitoring will be useful for verifying and/or understanding the risk and its sources.

For more information contact Michael Jones in OAQPS' Ambient Air Monitoring Group at 1-919-541-0528.

IMPROVE VISIBILITY MONITORING NETWORK

The IMPROVE network collects data on visibility, including optical, photographic, and speciated particulate data. EPA is working with the RPOs to implement the regional haze rule. Data from IMPROVE sites are needed to meet the regional haze rule requirements of states for monitoring Class I area long-term trends, as well as being useful in the required periodic assessments of progress towards the national visibility goal. States also use data from the IMPROVE network in developing strategies to implement the PM_{2.5} NAAQS in urban nonattainment areas. The IMPROVE network was started in 1987 as part of a federally-promulgated visibility plan and operated by the Department of the Interior (DOI) under the direction of a multi-agency federal/state steering committee. EPA expanded the original network in FY 1999 and FY 2000 from approximately 30 sites to 110 sites. The expanded network covers all of the CAA Class I areas where visibility is important (except the Bering Sea area which is impractical to monitor). EPA provides state/local air quality management STAG funds to the DOI to help maintain the IMPROVE network because of the importance of IMPROVE data to development of SIPs for both regional visibility and PM_{2.5} NAAQS attainment. The DOI and the other participant organizations contribute approximately \$4.2 million of their own funds or in-kind resources to support field operations at the 110 IMPROVE sites.

For reasons of convenience and/or consistency of data, a number of monitoring organizations have historically chosen to ask the IMPROVE program to provide field technical support and laboratory services for additional sampling stations at locations under their control, using the IMPROVE protocols for sampler design, sampler operation, and laboratory analysis. Data from these additional sites are managed and made public along with the data from the 110 sites in protected class I areas.⁷

After extensive testing to ensure data comparability, the IMPROVE steering committee approved a change in carbon analysis methodology (both analyzer and protocol) to replace their 18-year old analyzer systems with new system for all samples collected starting in 2005. The IMPROVE steering committee also mandated the development, and approved for use, a revised algorithm for estimating light extinction from IMPROVE PM speciation data, that is expected to be used by some states in their Regional Haze Rule SIPs. A revised (incorporating the latest data flags and edits) IMPROVE dataset required by the Regional Haze Rule for the 5-year baseline period (2000 to 2004) was disseminated through the IMPROVE and VIEWS⁸ web sites in fall 2005.

7 The tribal, state, local, and federal monitoring organizations sponsoring these additional sites provide the necessary funding to the IMPROVE contractors through OAQPS, from within whatever budget they otherwise receive for their ambient monitoring programs. This arrangement will continue in FY2007. Tribal, state, local, and federal monitoring organizations may continue, discontinue, or add sites for the monitoring period which runs from July 1 2007 through June 30, 2008. Once a monitoring organization has identified its source of funds for such sites, it may contact Marc Pitchford at 702-895-0432 to request monitoring support services and to begin arranging for the necessary funds transfer. Requests should be made as early in calendar year 2007 as possible, but no later than April 30, 2007. Where OAQPS has already been able to verify that a state/local monitoring organization is expected to direct some of its available STAG funding to this type of monitoring, that amount of funding may appear in certain tables of this document under the applicable EPA Regional Office. Because tribal grant workplans for FY2007 funding are not settled at this time in the funding cycle, no information is presented in this document concerning the number or cost of IMPROVE protocol sites that may be operated in Tribal lands using FY2007 funding.

8 The Visibility Information Exchange Web System (VIEWS) is a database system and set of online tools originally designed to support the Regional Haze Rule enacted by the EPA to reduce regional haze in national parks and wilderness areas. VIEWS provides easy online access to a wide variety of air quality data and provides online tools for exploring and analyzing these data. It also is used to facilitate the research and understanding of global air quality issues.

For FY 2006, about \$1.2 million of PM2.5 monitoring funds were appropriated under §105 authority and about \$2.4 million of state/local STAG funds appropriated under §103 authority were targeted to support aerosol monitoring activities at 110 IMPROVE sites. OAQPS will further consult with state and local air agency representatives concerning the appropriate level of support for IMPROVE in FY2007. The inter-agency IMPROVE steering committee has at OAQPS's request commissioned a network assessment to identify how a reduction in costs (or another reduction level) can be achieved with least adverse impact on the ability of the IMPROVE network to represent all of the visibility-protected class I areas. Funds saved by reducing IMPROVE program costs will be reallocated within the PM2.5 monitoring program.

For more information on any aspect of the IMPROVE program, contact Marc Pitchford at 702-895-0432.

INFORMATION FOR PLANNING AMBIENT MONITORING ON TRIBAL LANDS

EPA respects each tribe's sovereign ability to make monitoring decisions it deems appropriate for its needs. This section addresses issues for consideration when conducting ambient air quality monitoring in the context of an EPA grant work plan. There are no Clean Air Act requirements for ambient monitoring on tribal lands, so tribes have flexibility in customizing ambient monitoring to address the many different situations they face in terms of air quality and other environmental concerns. Whatever the local situation, the purpose of any ambient monitoring should be to inform the tribal public about the quality of the air where that quality is in doubt, to assist the tribe in managing its air quality, to help the tribe make the case that other governments or private parties need to control emissions due to their effect on air quality on tribal land, and/or to help track the effects of control actions to verify that they have addressed a problem. All monitoring data must be quality assured and entered into the Air Quality Subsystem (AQS).

Ambient monitoring may or may not be a good investment of resources compared to other air quality program activities or other environmental program activities. If monitoring is conducted, a tribe's interests can be best served when the type of monitoring is appropriate for the specific situation. For a given tribe, some types of monitoring may be useful, while others may have little practical use. Resources within the EPA tribal grant program are insufficient to pursue all potentially useful monitoring, so strategic planning based on thoughtful priorities is needed. The EPA Regional Offices will be the principal EPA partners with tribes in this case-by-case planning.

EPA has developed a draft National Ambient Air Monitoring Strategy that re-examines how the national ambient monitoring programs can be more thoughtfully directed towards their multiple purposes (<http://www.epa.gov/ttn/amtic/monstratdoc.html>), but for the most part this draft strategy presently addresses situations and considerations relevant to states, rather than the special situations and considerations relevant to tribes. We expect to issue additional guidance related to tribal air monitoring. Two documents are planned. The first will guide internal EPA activities in managing tribal air funds provided by Congress. The second will provide technical and administrative advice to tribes seeking access to those funds or already receiving and using funds to conduct monitoring. These two documents will be finalized in FY06, with or shortly

after the issuance of this National Program and Grant Guidance in its final form. The new guidance will continue to provide flexibility for tribes and Regional Offices to address the many different air quality situations on tribal lands on a case-by-case prioritized basis. One important element both new documents will be an emphasis on making data from EPA-funded monitors on tribal lands available to both EPA and the general public, once start-up problems are worked out and the data are reliable. See <http://www.epa.gov/oar/tribal/tam.html> for information on the progress in developing these two new documents.

Technical assistance in conducting ambient monitoring is provided to tribes through the Tribal Air Monitoring Support (TAMS) Center (<http://www4.nau.edu/tams/>). [TAMS staff can provide more specific information on any of the types of monitoring described here.](#)

The remainder of this section provides general information that may assist tribes in clarifying their objectives for ambient monitoring and getting started on planning monitoring to meet those objectives.

Air Toxics Monitoring: This may be the type of ambient monitoring of most interest to many tribes, because local sources potentially subject to tribal management can dominate exposures and because public perceptions of air toxic risks can be strong. As with all monitoring, the purpose of monitoring air toxics is to identify problems that merit action, plan what action will be effective, and track the effects of the action to verify it has addressed the problem. Of the 188 officially listed air toxic compounds under the Clean Air Act, a subset of 18 are currently routinely monitored at EPA-funded non-tribal sites.⁹ This subset will be reviewed during 2006 and may be expanded for 2007 monitoring. Tribal monitoring likely should not aim beyond this list or its revision without specific local reasons, and should not necessarily attempt to measure all of these. While many other compounds will be collected on the same filter or cartridge, or in the same canister, there is extra cost at the laboratory for each compound that is measured and reported. Some of the compounds on this list, for example carbon tetrachloride, are not emitted (or not supposed to be emitted) from any current source and/or have about the same concentration everywhere in the U.S. so there is little to be gained from measuring them on any particular reservation.

For many air toxics (excepting some gases), samples need to be collected in the field (or indoors) and shipped to specialized laboratories for analysis. EPA has contracts with qualified labs which make it relatively easy to have this done.

Interpreting air toxics monitoring data is not a simple task, since there are no legal bright lines between “acceptable” and “unacceptable” air quality, as there are for NAAQS pollutants. Interpretation can be more difficult or impossible if the monitoring location or the monitoring schedule is not appropriate for estimating risk to residents. Each Regional Office has specialists in risk assessment who can assist tribes in planning air toxics monitoring so that it is useful.

⁹ These monitored compounds are: benzene, carbon tetrachloride, chloroform, 1,3-butadiene, 1,2-dichloropropane, methylene chloride, tetrachloroethylene, trichloroethylene, vinyl chloride, arsenic and compounds, beryllium and compounds, cadmium and compounds, Hexavalent chromium, lead and compounds, manganese and compounds, nickel and compounds, acetaldehyde, formaldehyde, and acrolein.

See <http://www.epa.gov/air/tribal/airtoxics.html> for more information on air toxics from a tribal perspective. See <http://www.epa.gov/ttn/amtic/airtoxpg.html> for information on monitoring of air toxics. See <http://www.epa.gov/ttn/atw/nata/> for the 1999 National Scale National Air Toxics Assessment website; the information and links on this website may be useful background when considering whether and what air toxics to monitor on a reservation, even if no 1999 assessment was possible for that reservation due to lack of an emissions inventory.

Monitoring for NAAQS Pollutants using Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM): This type of monitoring is primarily useful for determining on a formal basis whether air quality in a given location meets or does not meet a national ambient air quality standard (NAAQS), for example ozone, PM_{2.5}, PM₁₀, CO, or lead. It takes three years of data collection to make this determination for most NAAQSs of interest. Establishing attainment status via FRM/FEM monitoring data can be important as it can affect the legal requirements that apply to sources at and around that location. It can also affect whether a tribe can pursue action to seek emission reductions from upwind sources beyond the tribal boundary.

Monitoring for certain NAAQS pollutants (e.g., PM_{2.5}, PM₁₀, CO, NO₂, lead) may indicate a need to reduce emissions within the tribal boundary in order to protect public health of the residents, but in many cases it will be obvious from an understanding of emission-generating activities that local sources do not cause or contribute to concentrations near or above the NAAQS. Judging from experiences in many non-tribal situations around the country, CO nonattainment is very unlikely on reservations, even where traffic is attracted by entertainment centers. Ozone nonattainment, if it exists, is most likely due to upwind off-reservation sources. PM₁₀ and PM_{2.5} sources on reservations (wood burning, fires, road and agricultural dust, etc.) could be a problem by themselves or exacerbate concentrations coming from upwind areas. Lead concentrations are very unlikely to approach the NAAQS unless there is uncontrolled smelting/recycling of car batteries.

Before beginning this type of monitoring, the Regional Office and tribe should consider: (1) whether attainment status can be determined with reasonable confidence in other ways (including passive monitors and other methods that do not qualify as Federal Reference methods but can be sufficient for unofficially showing that concentrations are well below the NAAQS), (2) how information on the attainment/nonattainment status once available could affect management of the tribal air program, and (3) how long the monitoring should continue if it does or does not show a NAAQS violation.

The EPA Regional Offices should work with the tribes to review the status and continued utility of any FRM monitors which have been operating long enough to have to have reasonably complete data for at least 3 to 5 years. If attainment with a comfortable margin has been found and if there is no on-reservation or nearby development that is likely to change the situation substantially, it may be good to discontinue this type of monitoring in favor of other environmental management efforts.

On January 17, 2006, EPA published in the *Federal Register* a proposal to revise the PM NAAQS. EPA proposed to lower the 24-hour PM_{2.5} NAAQS from 65 to 35 micrograms per cubic meter. EPA also proposed a 24-hour PM_{10-2.5} (i.e., PM coarse) NAAQS defined based on an indicator that includes concentrations of PM_{10-2.5} that are dominated by re-suspended dust from traffic on paved roads and PM from construction and industrial sources and excludes

concentrations of PM dominated by windblown rural dust and dust from agriculture and mining. Only monitors located within urbanized areas of population greater than 100,000 (and also meeting certain other proposed requirements) would be compared to this PM_{10-2.5} NAAQS for purposes of nonattainment designations. EPA also proposed to revoke the annual PM₁₀ NAAQS everywhere, and to revoke the 24-hour PM₁₀ NAAQS in all areas except where a PM₁₀ monitor in an urbanized area of over 100,000 population is indicating a violation of the 24-hour PM₁₀ standard. These proposals reflect EPA's understanding of health risks from the various subcategories of PM as of the time of the proposal, and are subject to change based on further comment and information. EPA recognizes that if these proposals are finalized, the revised NAAQS and PM_{10-2.5} monitoring criteria will represent a significant change in conceptual framework for Tribes in particular, as Tribes to date have considered PM₁₀ in their air to be a well recognized health risk. Also, few tribal reservations or other tribal lands will meet the proposed criteria for siting PM_{10-2.5} monitors for designation purposes. EPA will be attentive to tribal comments during the NAAQS rulemaking. We will also work with Tribes after the final rule (scheduled for signature in September 2006) to help them re-assess their monitoring and air quality program priorities in light of the final rule and the scientific evidence supporting it. For example, the 24-hour PM_{2.5} NAAQS and emission sources and weather conditions that contribute to high 24-hour PM_{2.5} concentrations may become of greater interest and concern than previously. Regardless of the content of the final rule, Tribes will continue to have the right to monitor whatever they choose, although EPA's decisions about priorities in funding various types of monitoring may ultimately be influenced by our revised understanding of PM health risks. No decisions about priority changes have been made at this time. EPA recognizes that considerable uncertainty exists about PM_{10-2.5} health effects, and tribes may reasonably wish to continue monitoring for PM_{10-2.5} or for PM₁₀ (a surrogate for PM_{10-2.5}) pending better resolution of these uncertainties. EPA also recognizes that the evidentiary requirements for setting a NAAQS are different and more difficult to meet than the considerations that may influence any one Tribe's priorities and monitoring plans.

Continuous PM_{2.5} Monitoring – There are several types and brands of monitors that provide estimates of PM_{2.5} concentrations on a continuous basis, without need for filters to be sent to a laboratory for weighing. These are both less expensive to operate than a filter-based monitor and can give information on air quality that tribal officials and the public can use in real time to manage emission sources and personal activities. Where official status as attainment or nonattainment is not an important issue, this type of monitor may better serve tribal needs. Improved models with official status as Federal Equivalent Methods may become available in the next couple of years.

Passive Monitoring: A passive monitor is one which “soaks up” pollution rather than actively collecting it on a filter or pumping it through an on-site measurement device. This means they can be used where there is no electricity supply. Also, the monitoring unit is usually inexpensive, so it is possible to place them more closely together or over a much larger area than conventional powered monitors could possibly be placed. Passive monitors are not suitable for formal designation of an area as attainment or nonattainment but they can help a tribe understand the air quality situation on its reservation, for example, what part of a reservation has the worst air quality and whether any part has concentrations that approach health benchmarks. There are passive monitors available for a number of pollutants including several volatile organic air toxics including benzene, ozone, CO, and SO₂. Time periods for exposing the monitor to the ambient

(or indoor) air vary. The monitors must be collected and sent to a laboratory for chemical analysis, so costs are not insignificant. EPA Region 6 has been in the forefront of applying passive monitoring to a variety of situations on and off reservations.

Photochemical Assessment Monitoring: This is a very specialized type of monitoring related to the ozone NAAQS, in which air samples collected in the morning are taken to a laboratory for measurement of the concentrations of many individual hydrocarbon species including some toxic gases. This monitoring is only done during the ozone season. The purpose is to help identify the chemicals and sources contributing to ozone and the most efficient controls for reducing ozone concentrations. It is unlikely that this type of monitoring meets any distinct tribal need. See <http://www.epa.gov/ttn/amtic/pamsmain.html> for further information.

PM_{2.5} Speciation Monitoring: This is a very specialized and expensive type of monitoring related to the PM_{2.5} NAAQS, in which filters collected over a 24-hour period are shipped by overnight express to a laboratory for measurement of various components of PM_{2.5} such as sulfate, nitrate, elemental carbon, organic carbon, and individual metals. This type of monitoring is done every third or every sixth day, year round. The purpose is to help identify the direct and precursor pollutants and sources contributing to PM_{2.5} and the most efficient controls for reducing PM_{2.5} concentrations. Most speciated trends network (STN) sites are in urban areas. This type of monitoring may meet a tribal need, if a PM_{2.5} nonattainment (or near nonattainment) situation is confirmed through simpler monitoring and its causes are not apparent, if high numbers of diesel engines operate in or upwind of the reservation, or if sources of toxic metals in PM_{2.5} form are known or suspected to be a health risk. However, if metals are a concern, it may be more appropriate to sample for metals in PM₁₀ form, under the air toxics monitoring program. See <http://www.epa.gov/ttn/amtic/speciepg.html> for more information.

IMPROVE Protocol Monitoring: IMPROVE stands for Interagency Monitoring of Protected Visual Environments. The IMPROVE program is described elsewhere in this Appendix. See <http://vista.cira.colostate.edu/improve/> for more information. Each site has several monitors, all aimed at collecting information to understand what pollutants and sources contribute to haze and to track changes in visibility over many years. Among these monitors are a PM₁₀ sampler and samplers to provide speciation details for PM_{2.5}. These data allow calculation of an index of visibility. The IMPROVE program can be convenient for the monitoring organization providing the site, because the IMPROVE program contractors provide equipment installation, training, periodic field support, laboratory analysis, and data management and publication.

Over the last several years, a number of tribes have applied for and received grant assistance from their EPA Regional Office to allow them to request the IMPROVE program to establish and provide technical services for an IMPROVE protocol sampling station on tribal land. The grant funds needed to pay for this are awarded to the tribe by the EPA Regional Office, but transferred to the IMPROVE program through OAQPS. Tribal monitoring organizations may ask for funding from their EPA Regional Office to continue, discontinue, or add sites for the monitoring period which runs from July 1, 2007 through June 30, 2008. Once a tribal monitoring organization has been awarded funds for such sites, the tribe and/or the Regional Office may contact Marc Pitchford at 702-895-0432 to request monitoring support services and to begin arranging for the necessary funds transfer. Requests should be made as early in calendar year 2007 as possible, but no later than April 30, 2007. In some cases in the past, a

Regional Planning Organization or other multi-state organization has funded a tribe's operation of an IMPROVE protocol site because of its advantageous location.

IMPROVE protocol monitoring is the generally accepted approach to quantifying visibility, and is the right approach if a tribe has a need for such quantification. EPA Regional Office staff can assist a tribe in understanding how such data could be used for official and unofficial purposes. Because the protocol quantifies carbonaceous material in PM_{2.5}, IMPROVE protocol sampling may also be of interest if high numbers of diesel engines operate in or upwind of the reservation.

CASTNET Monitoring: CASTNET is a long-term monitoring network of more than 80 sites located primarily in rural areas. This network is designed to measure status and trends in deposition of particles, ozone, and other pollution emitted from facilities with tall stacks (generally power plants), mixed in the atmosphere, and transported over long distances. Ambient monitoring at CASTNET sites is supposed to reflect the overall effect of emissions from many sources, rather than any individual plant. Tribes presently operate 2 sites and a third is planned to start up later this year. CASTNET is seeking to expand the number of sites in the western U.S. CASTNET sites are supposed to remain in operation for a long time. See <http://www.epa.gov/castnet/> for further information.

National Acid Deposition Program: The NADP program is run by the U.S. Geological Survey, and collects data on the chemistry of precipitation. A number of tribes currently are partners in this program and have sampling sites on their lands. See <http://nadp.sws.uiuc.edu/> for more information.

Smoke Monitoring: Tribes who use controlled or prescribed burning to manage forest or range land, or whose populations are frequently affected by fires may be interested in monitoring smoke concentrations either to help make decision on when it is safe to burn, or to advise residents of when to take action to avoid smoke exposure. There are no formal procedures or standard techniques for such monitoring at this time, but portable monitors and satellite data communication devices are being tested by EPA and several governmental partners.

NCore Multi-pollutant Monitoring: The NCore multi-pollutant precursor gas monitoring network is a concept that will be turned into reality over the next few years. The plan is to have a network of about 75 sites which simultaneously measure a variety of gas and particle pollutants, using continuous methods to follow changes during a single day, across the seasons, and over many years. Most of these sites will be in urban areas and will be operated by state or local governments. However, about 20 sites need to be in rural areas. While there is likely to be a direct use for only some of the monitoring data collected at an NCore station in a tribe's own air quality program, a tribe may wish to host a rural site in order to understand its air quality and to help advance the national air quality program. EPA OAQPS and Regional Offices will be planning the location of sites over the next couple of years, and Regional Office staff will contact a tribe if there appears to be an advantage in placing a site on a reservation. EPA has not yet identified exactly how a rural site on tribal land would be funded, but our intention is that the limited STAG funding for tribal air quality management would not be used because the benefit of the data from such a site would accrue to many other parties. We will be exploring this question with tribal and state/local officials over the next year or two. These sites, once initiated, are supposed to operate for many year without being moved.

Section IV. ADDITIONAL INFORMATION ON SPECIFIC AIR PROGRAM AREAS

DIESEL EMISSION REDUCTION GRANTS

Program Purpose: The President's budget request for FY 2007 includes \$49.5 million to support the Diesel Emission Reduction provisions of the Energy Policy Act (EP Act) of 2005. This includes funding for competitive federal grants to reduce diesel emissions from the existing fleet as well as funding to support the Agency's Clean School Bus USA program. These grant funds are authorized in sections 791-797 of the EP Act and will support implementation of the National Clean Diesel Campaign. Through this program, OAR will focus on reducing particulate matter (PM) by up to 95 percent from existing diesel engines, including both on-highway and non-road equipment. However, implementation of the program will produce both criteria air pollutant benefits as well as air toxics benefits. Existing diesel engines are not subject to the new, more stringent emission standards that take effect in 2007 and later. These engines often remain in service for 20 or more years, and this program will help provide immediate reductions by retrofitting these engines with emission control technologies sooner than would otherwise occur through normal turnover of the fleet.

This program will support diesel engine retrofits, rebuilds, replacements, and anti-idling measures. Five sectors are targeted for emission reductions from the existing fleet: freight, construction, school buses, agriculture, and ports. Under the EP Act, grants will be provided to eligible entities in areas not in attainment of the National Ambient Air Quality Standards for a criteria air pollutant. Up to 30 percent of the funds appropriated for diesel emissions reduction grants will be used to provide formula grants to states to establish and support state grant or loan programs.

Program Design: OTAQ expects to fund approximately 200 new grants deploying technology in various sectors using diesel engines. Funds will also be used to continue support to the well-established Clean School Bus USA program. Specifically, a portion of these funds will be used to award competitive grants for replacing older buses, re-powering and retrofitting them with emission control technology, such as diesel particulate filters. Other strategies include anti-idling programs that lower engine idling time and reduce harmful emissions.

The Agency's strategy to implement this program and disseminate its associated clean diesel funding will be dependent on the actual appropriation levels. In addition, the timing of the actual appropriation will dictate when EPA's national announcement of funding availability will be published. As directed by the Diesel Emissions Reduction Act (DERA) provision of the Energy Act:

- 70 percent of the funding is dedicated to provide grants and low-cost revolving loans to support the National Clean Diesel Initiative charged with achieving significant reductions in diesel emissions. This will include the Clean School Bus USA program. Note that 50 percent of these funds are directed to go to public fleets.
- 30 percent of the funding will be distributed directly to state programs that are designed to achieve significant reductions in diesel emissions. The Agency intends to provide guidance to

states for applying for these funds by the fall of 2006. This will include information on the cost-effectiveness of various emission reduction technologies, and permissible uses of the grant funds, as directed by the DERA provisions.

- In regard to the first 70 percent of the funding, the Agency will request proposals from eligible entities for projects that will reduce emissions from the existing fleet of diesel engines. EPA will give priority to projects that:

- maximize public health benefits,
- are in National Ambient Air Quality Standard (NAAQS) non-attainment areas
- pursue the most cost effective strategies,
 - including certified engine configurations, verified technologies, emerging technologies, ULSD
 - promoting alternative fuels where appropriate
- serve highest population centers
- serve environmental justice areas
 - showing disproportionate air pollution from diesel fleets

- EPA will publish multiple Requests for Proposals (RFP) and notify Congress, states, and other interested or eligible entities, of both this funding competition and of the direct state allocations through their respective associations (e.g., STAPPA/ALAPCO, AAPA, EMA, DTF), announcements on EPA's website, announcements on EPA's ten regional websites, press advisories, and other means.

- The RFP will provide a 90-day window for eligible entities to apply to EPA for this funding assistance.

- Once that 90-day window expires and within the subsequent 120-day period, EPA will:

- Review every proposal received to ensure each one meets the required criteria set forth in the RFP,
- Disregard proposals that do not meet the criteria,
- Rank each remaining proposal on its merits according to the criteria set forth in the RFP (see "priorities" above),
- Award the highest ranked proposals, and
- Notify Congress of the grantee selections.

For more information, please contact Jim Blubaugh in the Office of Transportation and Air Quality at 202-343-9244.

NATIONAL GEOGRAPHIC PRIORITIES

U.S.-Mexico Border Air Pollution

The proximity of states and localities in EPA's Regions 6 and 9 to the border presents a number of trans-boundary air quality challenges. Many border area residents, especially those in heavily urbanized areas, are exposed to health-threatening levels of air pollutants including ozone, PM, CO, SO₂, and air toxics. Visibility impairment exists in most of the Class I areas along and near the border. Accurate evaluation of air quality in the border will allow both countries to successfully target controls and reduce air pollutants.

The *Border 2012: U.S. Mexico Environmental Program* agreement, signed by both countries on April 3, 2003, was created to promote regional as well as border-wide strategies to improve air quality through coordinated air quality planning and management activities, such as the development of emissions inventories; the deployment, operation, and maintenance of air monitoring networks; the development of alternative fuels and energy sources; the development of innovative and progressive air quality management approaches; the design of air quality plans for the reduction and control of air pollution; and the development of public awareness and participation.

Milestones for demonstrating progress towards clean air in the border region are outlined by the *Border 2012 Program* and in EPA's long and short term strategic goals and objectives. Grant assistance plays a key role in helping achieve them. Early efforts focused on developing an organizational infrastructure, raising awareness, gathering information and establishing baseline information. Recent assistance has increasingly been focusing on critical analysis and mitigation measures aimed at attaining clean air goals.

EPA's activities are designed to encourage, develop and implement cooperative projects with various levels of state and local government and the Government of Mexico so that sustained, comprehensive pollution abatement can occur in the common air sheds of border sister cities, as well as in remote areas where trans-border air pollution occurs. In addition to supporting the efforts of affected state, local and multi-jurisdictional agencies, the *Border 2012 Program* uses regional workgroups, task forces, and policy forums to develop and implement air pollution emission reduction strategies. Many of these rely heavily on grass-roots input and actions.

EPA Regions 6 and 9 use a combination of direct grants and competitive solicitations to support State, Local, and Tribal initiatives. In encouraging local and grass-roots strategies, the Agency is committed to full and open competition for many grants and contracts. This empowers a larger number of state, local, and tribal entities to become active participants in border air quality improvements. The combination of these grants with directed, specific projects facilitated by contracts has yielded very positive results. Examples of achievements and planned accomplishments are shown in Table A-5. In selecting which prospective projects receive funding, EPA continues to emphasize those that can produce demonstrable environmental results (e.g., reductions in emissions).

Program contacts are: in Region 6 - Jim Yarbrough (214-665-7232) and in Region 9, Andrew Steckel (415-947-4115).

Table A-5. Recent and Planned Accomplishments of the U.S. Mexico Border Air Quality Program

| Category | Accomplishment (A- Achieved or Continuing; P- Planned) |
|-------------------------------------|--|
| Institutional Capacity | <ul style="list-style-type: none"> - (P) Administrative assistance to the San Diego County Air Pollution Control District for Border 2012 Air quality Task Force activities in the San Diego/Tijuana border region. - (P) Assistance to the Imperial County Air Pollution Control District for PM10 planning, Border 2012 Imperial/Mexicali Task Force Support, & to address international border issues. - (P) Providing administrative and technical support to the Paso del Norte Joint Advisory Committee for Air Quality Improvement, which is the local public-private stakeholders group working to improve air quality in El Paso-Ciudad Juarez. - (P) Provide administrative assistance to San Diego County Air Pollution Control District (SDCAPCD), Imperial County Air Pollution Control District (ICAPCD) and ADEQ for Border 2012 Air Quality Task Force support and activities. |
| Outreach and Awareness | <ul style="list-style-type: none"> - (A) Workshops with local officials to encourage implementation of cost-effective energy conservation/energy efficiency/renewable energy measures that reduce air pollution emissions. <p>Continue to support ADEQ's annual Clean Air Calendar project to raise awareness of air quality issues as well as public support for emissions reduction measures.</p> <ul style="list-style-type: none"> - (P) Working with SEMARNAT, Mexico state and local governments, and NGOs to identify additional monitoring needs in the border zone of Mexico which directly may impact U.S. air quality. - (P) Provide assistance to ICAPCD and the State of Baja California to maintain and enhance real-time air quality websites showing PM and Ozone concentrations. Both websites recently came on line for the first time and are linked to the AirNOW system, but enhancements such as automatic notification systems should make them more useful in reducing air pollution exposure, particularly for sensitive populations. - (P) Provide assistance to the Western Governors Association (WGA) to enhance energy efficiency in the border region. The Border Energy Website provides extensive bilingual technology transfer on cost-effective options for maquiladoras and other businesses in the border region. It also provides a mechanism to support energy audits. Seven of the recently audited organizations implemented projects that reduce energy usage by 495,000 KwHrs/year and committed to additional projects reducing consumption by another 745,000 KwHrs. Assuming this offsets power plant coal consumption, it eliminates over 3,000 tons/year of NOx emissions. |
| Assessment, Analysis and Evaluation | <ul style="list-style-type: none"> - (A) Establishment of a quality-assured air monitoring network in Ciudad Juarez, which is linked electronically to real-time reporting networks in Texas & New Mexico. - (P) Operating, quality-assuring, and reporting data to EPA from the existing border air and meteorological monitoring network in Texas and New Mexico. - (A) Modeling to determine the most effective carbon monoxide reduction strategies in the El Paso-Ciudad Juarez. - (A) Research to better understand the causes of, and determine solutions to, episodes of extremely high particulate matter concentrations in Texas from spring fires in the Yucatan area of Mexico and other countries of Central America. - (A) Project to study how truck traffic in the El Paso-Juarez area can most efficiently be relieved on the international bridges there, thereby reducing particulate matter and nitrogen oxides emissions. - (A) Continued assistance to the California Air Resources Board (CARB) for operation of the air monitoring network in the border region. In June 2004 EPA and SEMARNAT signed a Memorandum of Cooperation to transfer the operation and maintenance of the air monitoring stations in Tijuana, Rosarito, Tecate, and Mexicali to Baja, California within two years. EPA will continue to provide funding, training, and technical support for the operation of the monitoring network during the transition period. - (P) Assistance to the Western Governors' Association (WGA) for the completion of the Mexico National Emissions Inventory Project. - (P) Assistance to the WGA for the completion of the Border 2012 Baseline Report. - (P) Continue to provide assistance to the Arizona Department of Environmental Quality (ADEQ) to collect meteorological measurements, monitor air quality, build a complete air emissions inventory, perform a health risk assessment, analyze of various emission reduction techniques and public outreach. The project area includes Yuma, Somerton, and San Luis, Arizona; San Luis Rio Colorado, Sonora; NE Baja, California, SE California, and the Fort Yuma and Cocopah Indian Reservations. - (P) Continue to provide support to ADEQ for PM10 and toxics air monitoring and related outreach in Ambos Nogales, Douglas and Aqua Prieta. - (P) Continue to provide assistance to ADEQ to monitor O3, CO, and NOx emissions in Ambos Nogales. - (P) Continue to invest in state and local air agency monitoring of PM to assist in directing future emissions control strategies. - (P) Assessing infrastructure impacts, such as road paving, natural gas access, etc., on particulate matter pollution in the Paso del Norte air basin, & proposing/developing solutions. - (P) Continue providing assistance to the Arizona Department of Environmental Quality (ADEQ) and California Air Resources Board (CARB) to support PM and Ozone monitoring in Northern Mexico needed to develop effective strategies to reduce air quality problems in Mexico and NAAQS nonattainment in the U.S. Data from the CARB monitoring network was recently linked to the AirNOW system, allowing use in San Diego and Imperial County |

| Category | Accomplishment (A- Achieved or Continuing; P- Planned) |
|------------|---|
| | <p>dispersion modeling. EPA is currently working with CARB, Baja and SEMARNAT to transfer operation and maintenance of the 13-monitor Baja California network to Mexico, but we expect significant training, auditing and other assistance will still be needed from CARB in 2007. ADEQ efforts also include monitoring and assessment of air toxics, such as from brick kilns burning waste solvents and tires along the border.</p> <p>- (P) Provide assistance to CARB to analyze the truck fleet that routinely crosses the border from Mexico to California to improve our emission inventory, evaluate the air pollution impacts of NAFTA and help develop cost effective control strategies for a potentially significant new inventory subcategory.</p> |
| Mitigation | <p>- (A) Reduction of particulate emissions in the El Paso-Juarez-Las Cruces area through retrofitting of municipal vehicles to burn natural gas.</p> <p>- (A) Development of a biofuels production capability among the Ysleta del Sur tribe, using local restaurant waste and other feedstocks, which reduces particulate matter emissions in the El Paso-Ciudad Juarez airshed.</p> <p>- (A) Retrofitting buses and purchasing new buses to burn ultralow sulfur diesel fuel and provision of the low sulfur diesel fuel for two years in the Laredo Independent School District, resulting in reduced particulate matter and nitrogen oxides emissions exposure.</p> <p>- (A) Construction of a showcase Border renewable energy-powered water purification plant for San Benito, Texas, which results in reduced electricity demand on area power plants and hence less nitrogen oxides and particulate matter emissions.</p> <p>- (P) Energy efficiency/energy conservation/renewable energy demonstration projects to speed emissions reductions in Texas and New Mexico Border communities and rural areas.</p> <p>- (A) Pilot project to speed retrofits of diesel trucks in the Border region by capitalizing funding for a for-profit, third-party contractor to purchase SMARTWAY retrofit packages for the fleets, thereby reducing nitrogen oxides and particulate matter emissions, while also improving gas mileage.</p> <p>- (P) Speeding retrofits of commercial diesel fleets in the Border area, through expanded funding of a third-party, for-profit consortium and outreach to Mexico about EPA's SMARTWAY program</p> <p>- (P) For the Texas/New Mexico border area, assess and develop mobile source air pollution reduction strategies in border communities (e.g., strengthened vehicle inspection and maintenance programs, programs to retrofit/replace diesel engines, private cleaner fuels, and emissions monitoring from mobile sources).</p> <p>- (P) Assistance to the San Diego County Air Pollution Control District in partnership with CARB, SEMARNAT, State of Baja, California, and the City of Tijuana to develop a diesel reduction demonstration project in the San Diego-Tijuana binational area.</p> <p>- (P) Support to ADEQ for pilot projects in the Arizona/ Sonora area to reduce diesel emissions through such projects as retrofitting older diesel engines.</p> <p>- (P) Support to State, Local, and Tribal organizations to purchase increasingly fuel-efficient, low-polluting vehicles for fleets.</p> <p>- (P) Provide assistance to SDCAPCD, ICAPCD and ADEQ to implement diesel reduction projects along the border. Thirty diesel trucks are being retrofitted in San Diego/Tijuana with diesel oxidation catalysts in 2006, reducing PM emissions by at least 20%, CO by 40% and hydrocarbons by 50%. We expect seventeen diesel school buses will be retrofitted similarly this year in Nogales. In 2007, we plan to implement truck/bus retrofit projects in Imperial as well as Nogales and San Diego, adding diesel particulate filters (reducing PM, CO and VOC by 60-90%) and Smartway technologies (reducing fuel combustion).</p> <p>- (P) The Task Forces will continue developing a variety of projects designed to better understand and address local air pollution problems (e.g., PM and Ozone in California, largely PM in Arizona). Example projects in development that may be appropriate for 2007 funding include reduced diesel truck idling at San Diego border crossing (diesel particulate, NOx and CO), best management practices for unpaved parking lots in Imperial (PM), a biodiesel pilot near Nogales (VOC and CO) and a pilot automobile inspection/maintenance program in Northern Mexico targeting old vehicles imported from the U.S. (NOx, VOC and CO).</p> |

Great Lakes Air Deposition Program

Atmospheric deposition of air toxics is known to be one of the main environmental drivers negatively affecting the water quality and ecosystem health of the Great Lakes. The Great Lakes Air Deposition (GLAD) program supports improvements to, and applications of, multi-media strategy development and assessment tools needed to identify the contribution and effects of toxic air deposition to the Great Lakes region.

EPA, the eight Great Lakes states, and the Great Lakes Commission (GLC) work together to support GLAD activities based on the information needs of regulators and the relevance to toxics efforts. In FY 2006, all funds allocated to the Great Lakes were awarded fully to the GLC, a

multi-jurisdictional organization representing the eight Great Lakes states. For the past decade, the GLC has coordinated the Great Lakes regional air toxics inventory project. Starting in FY 2004, the GLC also began coordinating the award of additional funding to meet the research needs of state agencies. The project activities, outcomes and funding priorities are state-driven. Representatives from the eight Great Lakes states provide significant input to the GLC in the selection of award recipients for projects in the Region through participation on project management and technical review teams.

Priority activities of the program include: identification of air toxics sources, development of accurate and comprehensive air toxics emission inventories, monitoring of air toxics deposition, modeling of atmospheric dispersion and deposition of toxic pollutants, assessment of long-range atmospheric transport of toxic pollutants to the Great Lakes region, and assessment of the effects of atmospheric toxic pollutants on fish and wildlife. These activities are consistent with the goals of the CAA, the Great Lakes Bi-national Toxics Strategy, the Great Waters Program, and the Office of Water's Total Maximum Daily Load (TMDL) Program. Development of this information is critical in establishing the basis to create further regulations and strategies to minimize atmospheric loadings to the Great Lakes and other inland water bodies. The results of this work are used to guide federal, state, and local policy for the Great Lakes and other fresh water ecosystems.

Previous efforts funded under this program have focused on the atmospheric deposition of mercury to lakes and land, a national priority and a global concern. In addition, the development of atmospheric deposition analyses and robust toxic inventories are critical in establishing the basis to develop further state regulations and strategies to minimize atmospheric loadings to the Great Lakes and other inland water bodies.

Current projects are focusing on: (1) measurement of polybrominated diphenyl ether atmospheric concentrations and fluxes in Lake Superior; (2) evaluation of the extent and transport capabilities of PAHs within the Lake Erie watershed; (3) source apportionment of persistent bio-accumulative toxics (PBTs) and speciated PM affecting the Great Lakes through atmospheric deposition; (4) dioxin monitoring; (5) bio-availability and reactivity of atmospheric mercury in surface waters of the Great Lakes region; (6) enhanced rates of mercury methylation from sulfate deposition, (7) monitoring atmospheric mercury species in the Great Lakes; (8) development of improved monitoring devices PBT chemicals; (9) determination of PCB sources and emission estimates from electrical transformers; and (10) monitoring for a suite of PBT chemicals in support of Lake Ontario Air Deposition Study (LOADs).

Funding also supports the Great Lakes Regional Toxics Air Emissions Inventory Project. This project is helping create a comprehensive inventory of toxic air contaminant releases throughout the Great Lakes region from point, area, and mobile sources. The project develops a comprehensive inventory every 3 years (to match national efforts). Inventories are developed and delivered over a three year time frame. The next complete inventory, representing 2005 emissions, should be completed in 2007. This 2005 regional inventory is especially important because U.S. EPA will not be developing a national inventory for 2005. The inventory project is supported by the Directors of the Great Lakes states since it provides information to help develop their state inventories, enhance QA/QC efforts, and to improve coordination at a regional level. For example, information was used: by the Bi-national Toxics Strategy B(a)P workgroup to

target reduction strategies for states, by Wisconsin in its state-wide air toxics risk assessment, and in the NEPA Environmental Impact Statement analysis for Chicago's O'Hare Airport. Inventory information will also continue to be incorporated into national air toxics assessment efforts.

FY 2007 projects have not yet been determined, but EPA will continue to work closely with the GLC and the Great Lakes states to see continued improvement and application of multi-media strategies to address air deposition. EPA will highlight priority projects based on the regulatory and scientific needs of the Great Lakes states. In addition, research information and data collected as part of this effort will be shared via a Great Lakes Commission website. To support the Great Lakes activities in FY 2007, the Agency is proposing approximately \$1.2 million in STAG resources. For more information, including guidance on those entities eligible for receipt of funds, contact Julie Henning at 312-886-4882 or Erin Newman at 312-886-4587.

MULTI-STATE PROGRAMS : Multi-Jurisdictional Organizations

Regional Haze Planning Organizations

The President's budget request for FY2007 includes \$2.5 million for Regional Haze Planning Organizations (RPOs). Regional Haze SIPs are to be submitted by the States by December 17, 2007. The materials prepared by the RPOs in support of the Regional Haze SIPs must be provided to the States in late FY2006 or early in FY2007 in order for the States to meet the December 2007 due date.

The Western Regional Air Partnership (WRAP), the Visibility Improvement State and Tribal Association of the Southeast (VISTAS), the Midwest RPO, the Mid-Atlantic/Northeast Visibility Union (MANE-VU), and the Central Regional Air Planning Association (CENRAP) have taken a leadership role and been extremely active in developing the needed technical data, technical information and analysis required by their states for the states' regional haze SIPs. All five RPOs have continued to develop the technical foundation for their member states and tribes that are planning to submit section 308 SIPs in 2008, including: (1) air quality monitoring (where still necessary), (2) collecting and analyzing data, (3) preparing emissions inventories, and (4) modeling air quality.

The RPOs will begin the consultation work necessary to develop regional haze control strategies in FY 2006. They will jointly analyze modeling data to determine what reductions are necessary to meet visibility goals for each Class I area. Joint meetings began in winter 2005 and continue through FY 2006-2007 as the RPOs work together to reach consistency for their SIPs. In addition, the RPOs will continue to work together on a number of joint technical projects.

Under the present award cycle, EPA recently allocated the FY2006 funds to the RPOs. The RPOs were subject to pro-rata reductions in FY2006 funds in order to meet the 0.0476 percent rescission directed by Congress, as well as an additional one percent reduction resulting from expenditures for the hurricane relief effort in FY2006. The RPOs agreed to continue to provide support for the VIEWS database and to also support the RPO Emissions Warehouse project managed by MANE-VU. These reductions and funding transfers for VIEWS and the Emissions

Warehouse resulted in the allocation shown in Table A-6. An allocation for FY2007 will be provided later in the 2006 calendar year. Contact Jerry Stubberfield at 919-541-0876 or Bill Beal at 919-541-5667 for more information.

Table A-6. FY 2006 (not FY 2007) Regional Haze Planning Allocation

| RPO | Proposed | Total Rescission | Views Repayment | Emission Warehouse Support | Funds Directed to VIEWS IAG | Final Allocation |
|-------------|-------------|------------------|-----------------|----------------------------|-----------------------------|------------------|
| WRAP | \$1,200,000 | \$17,655 | (\$17,625) | (\$10,000) | | \$1,154,720 |
| Midwest-RPO | \$950,000 | \$13,977 | (\$17,625) | (\$10,000) | | \$908,398 |
| CENRAP | \$950,000 | \$13,977 | \$70,500 | (\$10,000) | (\$58,500) | \$938,023 |
| VISTAS | \$950,000 | \$13,977 | (\$17,625) | (\$10,000) | (\$23,500) | \$884,898 |
| MANE-VU | \$950,000 | \$13,977 | (\$17,625) | \$40,000 | | \$958,398 |
| Total | \$5,000,000 | \$73,562 | 0 | 0 | \$82,000 | \$4,926,438 |

In FY2005, CENRAP provided \$70,500 to support the VIEWS web. Out of their FY2006 funds, each of the other RPOs contributed \$17,625 as repayment to CENRAP. In support of the RPO Emissions Warehouse project managed by MANE-VU, each of the RPOs contributed \$10,000 from their FY2006 funds. In addition, CENRAP and VISTAS each provided \$23,500 to forward fund VIEWS. Recently, CENRAP also agreed to provide \$35,000 to support an IMPROVE protocol site for the Cherokee Nation. These funds (\$82,000) will be added to the Interagency Agreement with the Department of Interior to oversee the VIEWS web application. The other three RPOs may contribute similar amounts for VIEWS support in FY2007. The allocation of FY2007 funds for regional haze planning will be prepared in the summer of 2006.

The WRAP has also been supporting its five member states (Arizona, New Mexico, Oregon, Utah and Wyoming) that submitted regional haze §309 SIPs in early FY2004. Although WRAP's emphasis has been shifting to the §308 SIPs, support will be needed to resolve specific issues and to react to litigation related to the §309 SIPs.

Northeast Ozone Transport Commission

The OTC was created pursuant to sections 176A and 184 of the CAA. The OTC represents Northeastern and Mid-Atlantic states in the Ozone Transport Region (OTR) in: (a) assessing interstate transport of ozone and its precursors; and (b) determining the need for, and appropriateness of, additional control measures within the OTR, or areas affecting the OTR. The OTC is supported by a small executive staff that functions largely to coordinate OTC activities, facilitate communication among members, and serve as the point of contact for organizations external to the OTC, including EPA. The OTC Executive Director also serves on the CAAAC, a senior-level Federal Advisory Committee established in 1990 to advise EPA on issues related to implementing the Clean Air Act Amendments of 1990. The OTC also serves as the regional haze planning organization for the OTR, in concert with the Northeast States for Coordinated Air Use Management and the Mid-Atlantic Regional Air Management Association.

For FY 2007-2009, the OTC's work continues to focus on six areas: general analytical support to member states; analysis of mobile, stationary, and area source measures, particularly new clean air technologies; member communications; solicitation of non-governmental stakeholder input; coordination with other organizations; and consensus building. The focus areas are supported by OTC committees that develop and recommend specific action items for the Commission and the member states. The OTC implements its policy recommendations through consensus resolutions and draft model rules that provide guidance to member states. EPA is seeking comment on the appropriate level of funding for OTC activities. For more information contact Pat Childers at EPA at 202-564-1082.

STAPPA/ALAPCO Secretariat

STAPPA and ALAPCO are the national associations for state, territorial, and local air pollution control agencies in the U.S. STAPPA and ALAPCO are represented by a Secretariat with a small staff located in Washington, D.C. The objective of the Secretariat is to coordinate the air quality activities of state and local air pollution control officials at the national level and to engage in activities that enhance the effectiveness of their agencies. The Secretariat disseminates information through a variety of means (e.g., electronic newsletter, website, email, technical committees), plans and sponsors conferences and technical workshops (e.g., mobile source air quality, air pollution awareness, membership meetings) serves as a state/local liaison to EPA, coordinates member participation on EPA and joint State-EPA technical committees, produces technical assistance for members such as model rules and implementation strategies, and addresses air pollution control issues in concert with other public and private interests.

Funding for the Secretariat has been identified as part of the national allocation at the request of the member state and local agencies for numerous years. A jurisdiction not participating in STAPPA or ALAPCO does not provide any of its allotted funds for support of the Secretariat. Traditionally, the STAPPA and ALAPCO boards (comprised of state and local air pollution control officials) act on a request from the Secretariat for a two-year period and request that EPA set aside funds from the participating state and local agencies' grant funds on a proportional (i.e., population) basis. As STAPPA and ALAPCO are forward-funded, these funds go to support the Secretariat for the ensuing fiscal year.

The STAPPA-ALAPCO Secretariat submitted an EPA-related budget totaling just over \$1.45 million in FY 2006 STAG funds for its FY 2007 grant year. Of this amount, approximately \$1.26 million was requested of EPA to be set-aside from member state and local agencies. The balance is to be direct-billed to the seven member states preferring that payment approach. The final FY 2007 funding level (for the Secretariat's FY 2008 grant year) has not yet been determined. Last year's funding level is shown as a placeholder. The actual award level will depend upon final approval of the STAPPA and ALAPCO executive boards, which represent the state and local membership; further consultation with, and the documented concurrence of, affected state and local agencies as part of their annual grant negotiations with EPA, and EPA's own action on a formal, approvable application. For more information, contact William Houck at 202-564-1349 or via email at – houck.william@epa.gov.

Other multi-jurisdictional organizations. Many state and local agencies have chosen to form multi-jurisdictional organizations (MJOs) to help coordinate their geographically-specific air

quality interests at the *regional level*. State and local agencies that provide funding to these organizations do so at their discretion. Funding for these regional MJOs is not individually delineated as part of the national Region-by-Region allocation of CAA STAG funds. Funding levels for these organizations are included within the relevant sub-objective categories of their respective Region or Regions' allotment(s).

A state or local agency wishing to fund an MJO may: (a) direct that the EPA Regional Office set aside that agency's desired contribution from its prospective portion of the regional allotment (i.e., on a pre-allotment basis); or (b) directly fund the organization once the agency receives its allotment. These same options also apply to funding STAPPA-ALAPCO, which coordinates the interests of participating state and local agencies at the national level. However, STAPPA-ALAPCO, because of its *national* focus, continues to be shown as a national line item funded at the discretion of the contributing state and local agencies.

Over the next several months, the Regional Offices will be working with their state and local agencies to identify the appropriate level of FY 2007 funds to be targeted on a pre-allotment basis for MJOs. Funds for MJOs must be to help the contributing agencies implement the requirements of a national environmental program (i.e., clean air). When doing so, these organizations serve to carry out a co-implementor/co-regulator function. OAR's "Guidance for Funding Air and Radiation Activities Using the STAG Appropriation," issued on November 12, 1999, provides additional information on the appropriate uses of STAG funds for MJOs.

STATE/LOCAL PROGRAM SUPPORT

NOx Budget and CAIR Seasonal Trading Programs

NOx emissions from major stationary sources contribute significantly to the formation of ground-level ozone, a serious public health and environmental problem. Long-range transport of ozone and precursor pollutants means that problem analysis and mitigation must involve all of the jurisdictions with sources contributing to, and populations affected by, these pollutants. Experience has demonstrated that one of the most effective ways to achieve this is through a multi-jurisdictional, market-based approach using a well-designed, centrally-administered NOx emissions budget and trading system. States affected by the NOx SIP Call have adopted this approach as part of their NOx State Implementation Plans.

Highlights

- NOx Budget program begins phasing into CAIR Seasonal program.
- New States are added.
- Overall program costs are lower.

For fiscal years 2004-2006, OAR allocated approximately \$2.6 million annually for support of the combined OTC and NOx Budget Programs (NBP) for 19 states and D.C. affected under Phase I of the SIP Call. In FY 2007, the program will incorporate an additional Midwest state and more sources under Phase II of the SIP Call, which will require the establishment of new allowance accounts. Over 2,500 units are now reporting in the system and the volume of emissions data processed by EPA has increased almost 300 percent over the original OTC Program. In FY 2007, units in six additional states affected by the CAIR seasonal NOx program

will begin monitoring and reporting emissions data. EPA will also assist the present NBP states in transitioning their sources and allowances into the CAIR seasonal NOx trading program.

In 2005, the focus was on completing the Data and Maps portion of the NOx Budget Program website. Software development has been expanded to include a client tool for reporting and correcting Monitoring Plan and emissions data with upgraded quality assurance auditing capability. Allowance, emissions and CASTNET data are available on line with query wizard and quick report capabilities provided to the states and other users. The compliance determination process known as "True-Up" will also be automated in FY 2007. Several software development activities to contain or lower program operating costs are also nearing completion and, as a result, the per-source costs have been reduced. OAR will allocate approximately \$2.3 million in FY 2007 across the NBP states and the new CAIR seasonal states for operation of this program.

EPA's administration of the trading program on behalf of the states through a national contract is considered associated program support. Through FY 2006, support for the NOx Budget program has come from the grant funds of the affected states. State shares are based on the number of affected sources per state times a unit cost per source. Funds that would normally go to the states through EPA's region-by-region allotment are instead targeted to support the Budget program in advance of actual allotment to the affected states. Accordingly, this support is not included in individual state grant agreements and does not affect a state's cost-sharing requirements. Jurisdictions not affected or not participating in the trading programs have not had to contribute their grant resources to support them. For example, Georgia is not included in the system.

For FY 2007, because of operating efficiencies, NOx/CAIR program costs are anticipated to decrease relative to FY 2006 at the same time that additional sources and additional states are being added to the program (see table A-7). Accordingly, the contributions of states in the program in FY 2006 will remain the same or be reduced. States joining the program in FY 2007 would show a new contribution based upon their cost per unit (source).

For more information contact Larry Kertcher at 202-343-9121 or Doris Price at 202-343-9067.

Table A-7. Changes in the NOx/CAIR Budget Program

| Region/ State | FY 2006 NOx Budget Program Cost Adjusted Per Rescission | Projected Units in CAIR Seasonal Program | CAIR Seasonal Program Cost |
|------------------------|--|--|-------------------------------|
| Region 1 | \$204,101 | 172 | \$117,592 |
| Connecticut | \$65,216 | 60 | \$41,021 |
| Massachusetts | \$114,731 | 90 | \$61,531 |
| New Hampshire | \$13,285 | 8 | \$5,469 |
| Rhode Island | \$10,869 | 14 | \$9,571 |
| Region 2 | \$596,603 | 534 | \$365,082 |
| New Jersey | \$216,178 | 180 | \$123,062 |
| New York | \$380,425 | 354 | \$242,021 |
| Region 3 | \$559,165 | 563 | \$384,909 |
| Delaware | \$41,062 | 40 | \$27,347 |
| District of Columbia | \$9,662 | 5 | \$3,418 |
| Maryland | \$78,500 | 90 | \$61,531 |
| Pennsylvania | \$260,863 | 211 | \$144,255 |
| Virginia | \$101,447 | 137 | \$93,663 |
| West Virginia | \$67,631 | 80 | \$54,694 |
| Region 4 | \$513,272 | 891 | \$609,154 |
| Alabama | \$83,331 | 101 | \$69,051 |
| Florida * | | 259 | \$177,072 |
| Kentucky | \$90,577 | 102 | \$69,735 |
| Mississippi * | | 75 | \$51,276 |
| North Carolina | \$129,224 | 152 | \$103,919 |
| South Carolina | \$90,577 | 94 | \$64,265 |
| Tennessee | \$119,562 | 108 | \$73,837 |
| Region 5 | \$642,496 | 869 | \$589,628 |
| Illinois | \$178,739 | 268 | \$178,739 |
| Indiana | \$169,078 | 181 | \$123,745 |
| Michigan | \$119,562 | 141 | \$96,398 |
| Ohio | \$175,116 | 197 | \$134,684 |
| Wisconsin * | | 82 | \$56,061 |
| Region 6 | | 125 | \$85,459 |
| Arkansas * | | 41 | \$28,031 |
| Louisiana * | | 84 | \$57,429 |
| Region 7 | \$21,739 | 148 | \$101,184 |
| Iowa * | | 46 | \$31,449 |
| Missouri | \$21,739 | 102 | \$69,735 |
| Total Annual \$ | \$2,537,376 | 3,302 | \$2,253,009 |

* New CAIR states.

Mobile Sources Outreach Assistance

Given reductions in overall STAG §105 funds to state, local and tribal agencies and the advent of an expanded diesel emissions reduction program, OAR has re-targeted resources formerly targeted for this initiative instead for redistribution among all the Regional Offices for other Section 105 program purposes.

Clean Air Act Training

In FY 2006 EPA and State and local agencies agreed to target approximately \$2 million for the support of Clean Air Act training provided by multi-jurisdictional organizations and other state/local academic organizations. EPA also agreed to continue to contribute additional resources for CAA-related course development and course delivery. FY 2007 funds allocated for CAA training will be awarded as grants in early CY 2007 with work beginning about October 2007. While EPA will continue to devote resources to CAA course development and delivery on critical CAA topics and new requirements, the approach to funding training provided to state organizations and universities beyond FY 2007 for has not yet been defined. All the mechanisms used to target funds to state organizations and universities will expire by September 30, 2007. EPA has again tentatively reserved approximately \$2 million in STAG funds for support of Clean Air Act related training and will work with the state and local agencies on determining how these funds should be targeted and to whom. For more information contact Scott Mathias at 919-541-5310.

Program Support for Monitoring Related to TSP, PM₁₀, Air Toxics and VOC Species

EPA makes procurement services available to state and local agencies, via a national contract, for the use of ambient monitoring equipment, sample analysis, and associated data reporting/archiving (see Table A-8). This bulk purchase approach provides significant cost-savings to state and local agencies. The services offered in past years included assistance in monitoring site set-up and laboratory sample analysis for non-methane organic compounds, urban air toxics, carbonyls, PAMS, and hazardous air pollutants, purchase of particulate matter filters (PM₁₀ and total suspended particulates); and, performance evaluation (PE) sample support for agencies participating in NATTS.

Traditionally, OAQPS works with Regions to determine the level of funds that each state or Tribe wants to allocate for the national procurement contracts. These services can be conducted as either associated program support or as in-kind assistance. In providing associated program support, EPA works with Regions, tribes, and state and local agencies in advance to identify needs on a national basis and targets funds for the support *before* determining the final Region-by-Region allocation of grant funds (i.e., pre-allotment). In contrast, in-kind assistance is agency-specific and the value of the service is included in the grant agreement of a state, tribe, or local agency *after* final agency-by-agency allotments are determined. This approach requires the recipient provide an appropriate amount of matching funds and meet other grant administrative obligations relative to the in-kind assistance. This occurs when contract support is requested by a grant recipient after their grant is awarded.

For FY 2007, EPA proposes that national procurement services noted above continue to be handled as associated program support on a pre-allotment basis. Additionally, beginning in FY

2007, funding for PM_{2.5} national contract procurement support to states, including laboratory speciation analysis of PM_{2.5} materials, is also proposed to be handled as associated program support in the same manner as the other procurement services noted above. This should avoid any concerns related to the matching requirements of §105 as the PM_{2.5} monitoring program moves from 100 percent federally-funded §103 authority to the cost-shared §105 program.

Table A-8 Preliminary FY 2007 National Procurement Contract Amounts ¹⁰

| Region | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Totals |
|-----------------------|--------|---------|--------|---------|---------|--------|--------|---------|---------|--------|-----------|
| Categories | | | | | | | | | | | |
| S/NMOC Sampling Sites | | | | 26,271 | | | | | | | 26,271 |
| UATMP Sites | | 468,276 | | 29,264 | | | | 128,608 | | | 626,148 |
| PAMS Q/A Support | 10,139 | 11,273 | 14,772 | 28,690 | 29,004 | 2,463 | | | 125,000 | | 221,341 |
| Carbonyl Monitoring | | 41,160 | | 93,626 | 12,000 | | | | 30,000 | | 176,786 |
| HAP Support | | 26,714 | | | | | | | | | 26,714 |
| PM Filters | 6,461 | 18,442 | 38,372 | 59,810 | 76,312 | 19,112 | 25,262 | 33,086 | 55,000 | 27,258 | 359,115 |
| Totals | 16,600 | 565,865 | 53,144 | 237,661 | 117,316 | 21,575 | 25,262 | 161,694 | 210,000 | 27,258 | 1,436,375 |

Typically amounts to be set aside on a pre-allotment basis for the forthcoming fiscal year are identified after EPA and states conclude their grant negotiations in the preceding spring and summer. Since the national grant guidance is released prior to these final agreements, OAR includes funding amounts from the prior year as preliminary or placeholder amounts. Once agreements are completed, the procurement table and the final regional allotments are updated. The current table (Table A-8) shows requested FY 2006 procurement levels as FY 2007 placeholder amounts by function and appropriate pollutant category (i.e., ozone, PM, toxics sub-objectives, etc.) on a regional basis. Final FY 2007 amounts will be based upon the final responses received from the Regions and their state and local agencies later this year. For more information on the funding aspects of the national procurement contract, including state-specific information, contact Margaret Dougherty at 919-541-2344 or via email at dougherty.margaret@epa.gov (contractual issues) or Phil Lorang at 919-541-5463 or via email at lorang.phil@epa.gov (technical issues).

Centralized Site Support and Laboratory Analytical Services - The EPA will continue coordinating centralized laboratory analytical services to support ambient monitoring programs in FY 2007 with those regional, state, and local agencies wishing to participate. A new feature in

¹⁰ Funds shown are placeholder amounts based upon initial requested FY 2006 levels. Once FY 2007 grant negotiations are completed with recipients, resulting support levels and corresponding regional allotments will be finalized.

2007 is that acrolein and chromium6 will always be analyzed using newly developed methods. Examples of services available via the national contract include those listed below.

Speciated and Total Nonmethane Organic Compound Program (SNMOC/NMOC): The SNMOC/NMOC program has been operating since 1984. The EPA continues to support a centralized program for assistance to state and local agencies in the collection of NMOC, SNMOC, selected toxic compounds, and carbonyl compounds. This program was initiated in 1984 to provide data for use in development of control strategies for ozone. As part of the SNMOC /NMOC program, participating sites are provided with all necessary sampling equipment, which they may co-locate with NO_x monitors. The SNMOC/NMOC program consists of the following base components:

- C Base Site support for sampling equipment preparation, installation and training, problem solving, and final reporting; and
- C Canister sample analysis for 78 speciated NMOC or total NMOC.

Options include:

- C Analysis for 60 toxic and polar compounds;
- C Cartridge sample analysis for 14 carbonyl compounds;
- C Concurrent analysis for both toxic and polar compounds and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

States collect the samples in canisters and/or cartridges and air freight them to Research Triangle Park, NC, for analysis. The samples are collected each week day from 6:00 to 9:00a.m. during the summer (typically June 1-September 30). In general, 96 samples are collected at each site over the study period. However, additional samples may be purchased.

Urban Air Toxics Monitoring: To support emerging needs for information on levels of organic toxic species in ambient air, OAQPS initiated the Urban Air Toxics Monitoring Program (UATMP) in 1988. This program serves as an analytical/technical support program similar to the SNMOC/NMOC program. The major purpose of this program is to support state and local agency efforts to assess the nature and magnitude of various air toxics problems via collection of 24-hour integrated ambient air samples at six or twelve day sampling intervals, sample analysis in a central laboratory, data reporting to EPA's Air Quality System, and site-specific data analyses. This program continues to be highly successful, with excellent overall data capture and data quality that meets well-designed program goals. The UATMP consists of the following base components:

- C Base site support for sampling equipment preparation, installation and training, problem solving, and final reporting;
- C Canister sample analysis for 60 toxic and polar compounds; and
- C Cartridge sample analysis for 14 carbonyl compounds.

Options include:

- C Canister sample analysis for 78 speciated NMOC; and

- C Concurrent analysis for both toxic and polar compounds and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

Carbonyl Monitoring: Carbonyl sampling and analysis has been part of the monitoring support options that the Agency has provided since 1990. While carbonyl monitoring support can still be performed simultaneously with other program elements, the independent carbonyl option provides more flexibility for special studies and saturation monitoring programs. The Carbonyl Monitoring Program support consists of the following base components:

- C Base site support for sampling equipment preparation, installation and training, problem solving, and final reporting; and
- C Cartridge sample analysis for 14 carbonyl compounds.

PAMS and Toxics: PAMS support items will be available to include technical off-site and on-site support (initial equipment set-up, on-site technical assistance, consultation, problem solving, etc.); quality control (QC); and quality assurance (QA) program support (data validation, standards acquisition, and data management support). VOC canister, carbonyl compounds sample and concurrent toxics and speciated hydrocarbon analysis are also available.

The PAMS and toxics technical support program consists of the following base components:

- C Technical site support;
- C QA/QC support;
- C Canister analysis support for PAMS compounds;
- C Cartridge sample analysis for 14 carbonyl compounds; and
- C Concurrent analysis for both toxic and polar compounds and speciated NMOC at a cost that is significantly reduced compared to performing the two analyses separately.

The PAMS automated analysis systems and/or multiple canister collection system purchase and installation are the responsibility of the participant. The amount of support an agency can order for the PAMS technical site support and QA/QC components of the program have been divided into smaller increments so that state, and local agencies can order the exact amount of support they require.

Other Hazardous Air Pollutant Analysis: The national monitoring support programs have been expanded to provide for the measurement of additional HAPs to support the effective implementation of the CAA and address the needs of other special studies. Analytical services support is provided for samples containing specific HAPs, which are a subset of the 188 compounds listed in the CAA. Participants are responsible for providing all necessary sampling equipment. The analysis among categories is based upon the specific needs of the state or local agency. This support also will assist the states in implementing the new national ambient monitoring network. Some of the available options under this category include:

- C Canister sample analysis for 60 toxic and polar compounds;
- C Cartridge sample analysis for 14 carbonyl compounds;
- C Metals, hexavalent chromium, semi-volatiles, PAHs, dioxin, etc.

PE Sample Support: Agencies that are participating in the NATTS can receive PE samples on an annual basis. These can include VOCs, Carbonyls, SVOCs and metals on quartz filters. The PE samples shall be generated and analyzed by the national contractor and sent as “blind” samples to the participating agency. If an agency uses the national contractor for analysis, the agency will not be able to use the contractor for PE sample support.

Particulate Matter Filters: OAQPS has historically purchased particulate matter filters (for PM₁₀ and total suspended particulate sampling used for metals analysis) through a national contract and distributed these to state and local agencies across the nation. The economies of scale from this type of centralized purchasing, centralized acceptance testing of filters, and distribution has produced lower costs than if state and local agencies each purchased these filters through their individual agencies. State and local agencies are responsible for providing information to the Regions each year on the numbers and types of filters required prior to shipment.

For more information on Centralized Site Support and Laboratory Analytical Services, contact Margaret Dougherty at 919-541-2344 (dougherty.margaret@epa.gov) or Michael Jones at 919-541-0528 (jones.mike@epa.gov).

Section V. PRELIMINARY STATE AIR GRANT ALLOCATION

The preliminary allocation of state and local air grants, developed after prior consultation with state, local and multi-jurisdictional agencies, is included in a separate attachment to this guidance.

Section VI. STATE INDOOR RADON PROGRAM

The State Indoor Radon Grant (SIRG) Program distributes grants authorized under section 306 and 10(a) of TSCA. The objectives of the SIRG program are articulated in EPA's *State and Tribal Indoor Radon Grants Program Guidance and Handbook* (January 2005). State and Tribal recipients are encouraged to design and implement programs that: (a) focus on the most direct and effective approaches that reduce the radon risk in homes (and schools); (b) establish measurable risk reduction targets; and (c) achieve quantifiable public health results. Recipients of FY 2007 SIRG grants should give priority to achieving these results:

- New homes built with radon-resistant features, especially in high-radon areas (Zone 1).
- Testing and mitigation of existing homes with a radon level ≥ 4 pCi/L, especially in high and medium radon areas (Zone 1 and 2).
- Testing and mitigation of homes involved in real estate transactions.
- Real estate companies and state/local governments adopt radon disclosure policies or requirements applicable to residential real estate transfers.
- Develop coalitions to work with local governments, partner affiliates, and other community leaders on radon risk reduction activities.
- Testing and (where necessary) mitigation in schools.
- Setting targets for public health, i.e., for testing, mitigation, radon-resistant new homes, and awareness activity (optional).
- Innovative results oriented activities and partnerships involving radon awareness, testing, mitigation and radon resistant new construction.

The State Indoor Radon Grant program's priorities, performance measures, reporting of results and grant allocation methodology are integrated to maximize the reduction of risks from radon. Population, smoking rates and geologic potential (e.g., high-radon areas) are the principal factors in allocating appropriated SIRG funds. In consultation with EPA regional offices, the SIRG National Program has also established a national Tribal allocation target (approximately 8 percent of the total annual funds appropriated) to underscore the importance of Tribal radon programs. Regional allocations include funds for tribes that have existing agreements, as well as funds for potential new agreements. The regional offices also have the flexibility to exercise discretion in determining the final state or Tribal amounts for award.

A proposed allocation for FY 2007 is shown in Table A-10. One important note is that the recipient cost sharing requirement for the SIRG program was reduced from 50 percent to 40 percent during the FY 2006 appropriations process. This lowered matching level remains in place for FY 2007 and beyond and is expected to facilitate the States' ability to match Federal dollars.

For further information on the SIRG program contact Phil Jalbert at (202) 343-9431, email - jalbert.philip@epa.gov, in the Indoor Environments Division.

Table A-10. FY 2007 Preliminary State Indoor Radon Grant Allocation

(Program Results Code – 102A05E)

| Region | Amount |
|---------------|---------------|
| 1 | 847,718 |
| 2 | 726,615 |
| 3 | 670,101 |
| 4 | 1,396,713 |
| 5 | 1,784,244 |
| 6 | 823,497 |
| 7 | 702,395 |
| 8 | 532,851 |
| 9 | 419,822 |
| 10 | 169,544 |
| | |
| Total | 8,073,500 |

Section VII. SUPPLEMENTAL INFORMATION FOR EPA PROJECT OFFICERS

This section provides additional information and updates on grant administration and grant management topics for EPA project officers and grant recipients. Separate information on the new State Grant Workplan Template provisions is contained in Appendix C. Appendix D discusses the implementation of EPA Order 5700.7 - Environmental Results in Grants.

Capabilities of Non-Profit Entities

FY 2006 is the first full year that the Agency's Order 5700.8, "EPA Policy on Assessing Capabilities of Non-Profit Applicants for Managing Assistance Agreements" is in effect. The "Pre-Award Order" became effective on March 31, 2005. The purpose of the Order is to ensure that non-profit recipients of EPA grants and cooperative agreements have sufficient technical and administrative capability to manage the agreement and complete the proposed workplan. The Order is available at: http://www.epa.gov/ogd/grants/award/5700_8.pdf. Additional guidance augmenting the Order is available for EPA project officers at: <http://intranet.epa.gov/ogd/preaward/Pre-Award%20Guidance%205-16-05.pdf>.

Cost Review and Reasonableness

In June 2005, the State-EPA Grants Workgroup issued findings and recommendations regarding the timeliness of grant awards to States under 40 C.F.R. Part 35 Subpart A. The Workgroup found, among other things, that EPA did not have a consistent approach to performing cost reviews for State continuing environmental program grants/ Performance Partnership grants (PPGs), and recommended that the Agency clarify the application of cost review principles to these grants. After consultation with Regional grants management offices, National Program offices, States and the Office of the Inspector General, the Office of Grants and Debarment (OGD) has developed draft guidance for state (and local) continuing environmental program and Performance Partnership Grants awarded under 40 C.F.R. 35. The guidance is still undergoing review but the intent has been to clarify a couple of key areas - changes in personnel and travel costs - without encumbering States administratively. The OGD contact is Francis Roth at 202-564-5311.

Co-Implementor/Co-Regulator Exceptions

The Agency will soon issue additional clarification on the definition and treatment of co-implementor/co-regulatory entities as articulated in Section 12(A)(4) the Agency's Competition Policy (EPA Order 5700.5A1). Such entities, if they meet the justifications required in Section 12(A)(4) or the Order, are excepted from the requirements of the Competition Policy. The exception applies to an award to a national or regional organization that represents the interests of co-regulators or co-implementors (State, Tribal or Local governments) in the execution of national or regional environmental programs. The membership of such national or regional organization must be predominantly composed of officials of the co-regulator or co-implementor entities (e.g., State or Tribal program directors or commissioners) and the organization must represent governmental interests (e.g., the interests of State, Tribal or Local government units) in the execution of national or regional environmental programs delegated to these governments or in a national or regional environmental program that they carry out in conjunction with EPA.

Unliquidated Grant Obligations

EPA's FY 2006 Appropriations Act contained an \$80 million rescission to be taken from expired grants, contracts and inter-agency agreements. The Agency conducted an extensive analysis that identified over \$130 million that could be subject to rescission. Of the \$80 million recently announced to be rescinded, over \$11.9 million are STAG resources from multiple categorical grant programs and Congressional earmarks. The Agency will develop procedures to track the utilization of the balance of funds identified and, if not being effectively used, these funds will be allocated to other priority areas. The Office of the Chief Financial Officer has issued a reminder to the NPMs, Regions (and indirectly to EPA's partners) that all must work to ensure the timely obligation and expenditure of all of the Agency's extramural funds.

CAA §105 Administrative Guidance

OAR, in consultation with OGC and the Regions, has drafted guidance that consolidates in one document, all the existing statutory, regulatory and policy provisions which govern the administration of the §105 continuing air grant program. The latest version of the draft guidance is undergoing a final review by the Regions. Comments have been requested by the end of April. OAR will then review those comments in concert with OGC then take the next steps to finalize the guidance document. The draft consolidated guidance covers recipient eligibility, eligible activities, statutory funding provisions, allocation, cost sharing, funding limitations, consultation, performance and evaluation, and relationship to other funding provisions such as PPGs.

Additional Planned Activities

OAR is also anticipating on working with the Regions and the Office of the General Counsel in CY 2006 to address an update of its CFDA program descriptions and authorities as well as its STAG Use Guidance (originally released in November 1999).